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FACTORS AFFECTING THE RATE OF ADOPTION OF THE 1971
ALBERTA SOCIAL STUDIES CURRICULUM FOR ELEMENTARY SCHOOLS

by



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A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Factors Affecting the Rate of Adoption of the 1971 Alberta Social Studies Curriculum for Elementary Schools" submitted by Francis Allan Crowther in partial fulfilment of the requirements for the degree of Master of Education.

Dateth October 1972.....

ABSTRACT

The study derived from the perceived need for investigation of two problems, each of which was related to the implementation of the 1971 Alberta Social Studies Curriculum for Elementary Schools. Firstly, an attempt was made to ascertain the reactions of elementary social studies teachers to the new Alberta social studies curriculum. Secondly, the study attempted to identify specific teacher variables which influenced rate of adoption of the new curriculum.

Five hypotheses and nine research questions were established in the light of a review of literature pertinent to the two problem areas. A recent conceptualization of the process of adoption of innovations as developed by Everett Rogers and F. Floyd Shoemaker (1971) was accorded special significance in the review of literature, the formulation of hypotheses, and, subsequently, in the development of the opinionnaire-type research instrument. A total of 91.9% of the selected research sample, or 317 teachers from nine school jurisdictions, participated in the research project.

Analysis of variance and t test were the statistical procedures chosen to test most of the hypotheses and research questions. The procedure of stepwise regression analysis was used to test two questions, and frequency distributions were compiled to test two others.

Major findings that resulted from the analyses of data were

as follows:

1. A total of 54.3% of the research population claimed to be attempting to incorporate elements of the new curriculum into their teaching of social studies. Approximately half of this group indicated that they had adopted the new curriculum quite extensively.

2. The value-oriented rationale of the new curriculum appeared to be compatible with the values and expectations of most teachers. The curriculum was perceived by classroom teachers at all stages of adoption as being more complex than is usual with an innovation, particularly in terms of application in the classroom, and as relatively disadvantageous as it related to the needs and interests of teachers although relatively advantageous to students.

3. Rogers and Shoemaker's (1971) generalizations about the influence on rate of adoption of perceived relative advantage, compatibility, complexity, trialability, and observability of an innovation were felt to be substantiated as these generalizations applied to classroom teachers. Relative advantage and complexity were the characteristics of overall most importance in distinguishing the stages of the adoption process.

4. The perceived influence of the principal (or vice-principal), supervisory personnel, other teachers, and in-service were each found to account for significant differences in rate of adoption of the 1971 Alberta social studies curriculum. Influence of the principal was most important of the perceived means of

influence in distinguishing the stages of the adoption process.

5. A "typical adopter" or "typical non-adopter" of the new curriculum could not be identified in terms of teaching experience, years of teacher training, major background of university study, or grade level taught. However, teachers with university courses in the new social studies were significantly more advanced in adoption of the new curriculum than were teachers without such courses.

6. Means of assistance in implementing the new curriculum most preferred by teachers were availability of model social studies units and the opportunity to observe the new techniques and strategies in actual classroom situations.

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CHAPTER 1

THE PROBLEM, ITS NATURE AND SIGNIFICANCE

I. Background to the Problem

Change is very much a part of our world today and our schools, as social institutions, are besieged with pressures for change by both external and internal forces. A subject area in which has occurred a great deal of experimentation, creative innovation, and careful investigation during the past decade in response to perceived needs for change is the social studies. For in recent years a great number of people, both educators and members of the general public, have come to believe that a major activity of schools, present and future, should be to assist young people towards a rational comprehension of their own and other people's values. The social studies, it is generally conceded, is the subject area best suited to this emerging function of the educational process.

In Alberta in the late sixties, the Curriculum Branch of the Department of Education set about the task of reshaping the social studies curriculum for this province in accordance with the findings of recent research and the anticipated needs of young Albertans living in the next decade. The result was a program which won immediate approval from respected critics, and which led to the

prediction that the Curriculum Branch of the Department of Education in Alberta "will have a profound impact on social studies curricula in the Seventies." Alberta, it is claimed, "has been able to rise above its limitations and pioneer a new social studies trail, one which has already pointed the way for several provinces." (Gunn, 1971, p.665)

II. Identification of the Problem

Such acclamation, however, may be presumptuous. Limitations to our knowledge of both human behavior and the change process are so formidable that, to date, it is extremely difficult, if not impossible, to predict in advance of implementation just what impact any major curriculum revision will have. For this reason, many contemporary researchers contend that evaluation at the instructional level is an essential component of the developmental curriculum process, and mandatory before the true worth of any curriculum innovation can be determined.

Comprehensive evaluation at the instructional level necessitates inquiry into the component of experiences and perceptions of classroom teachers. In the case of the innovation in question, the classroom teacher is the "adopting unit" who must decide whether the philosophy and objectives of the new Alberta social studies curriculum are relevant to the needs, capabilities and interests of students; whether stipulated course content and

suggested methodologies can, in reality, be utilized as intended by the Department of Education social studies planning committee; and whether the amount of teacher time and effort required to become thoroughly familiar with the new curriculum, and to implement it fully, is warranted by likely end results and rewards.

To date, no comprehensive attempt to evaluate the nature of the reactions of Alberta's elementary teachers to the new social studies has been attempted. Consequently, little is yet known about either the effectiveness of the program or the nature of the reception accorded it by classroom teachers. But if, as has been previously inferred, evaluation should take place at all developmental stages of large-scale innovation, it is apparent that the need exists at the present time for inquiry into the initial impact made by the new curriculum at the instructional level. The present study acknowledges this need.

It is recognized, however, that such an investigation will be of most utility to those involved in future curriculum implementation activities if it is successful in identifying specific factors which have either facilitated or impeded the adoption of the innovation in question. For there continues to exist in education what Guba has referred to as a "rampant conceptual poverty about the change process." (Gross, Giacquinta, & Bernstein, 1971, p.8) That is, although a great number of researchers have propounded theories about the different rates of adoption of educational innovations,

little consensus exists as to why some innovations are readily adopted while others fail to be incorporated into the social system of the school.

Recently, however, sociologists Everett M. Rogers and F. Floyd Shoemaker (1971) have devised a conceptual framework which classifies influences on adoption of innovations according to a rationale which appears to have application and potential usefulness to the process of planned change in education. This classification is conceptualized by Rogers and Shoemaker as in Figure 1.

It is intended by Rogers and Shoemaker that their model, or an adaptation of it, will eventually be able to be utilized so as to speed the rate of adoption of worthwhile innovations. But Rogers and Shoemaker indicate that much preliminary investigation must firstly be carried out. In particular the first component of the model, the attributes of an innovation as they are perceived by the members of a social system, has been subjected to little empirical research although it is recognized as an area of great potential value to those interested in initiating change processes. (Rogers and Shoemaker, 1971, p.135)

In education, studies of adoption of innovations have seldom involved classroom teachers as respondents. Perhaps it is because classroom teachers have been regarded as "bureaucratic functionaries" (Johnson, 1969, p.146) with few important decision-making responsibilities that their perceptions, opinions, and personal characteristics

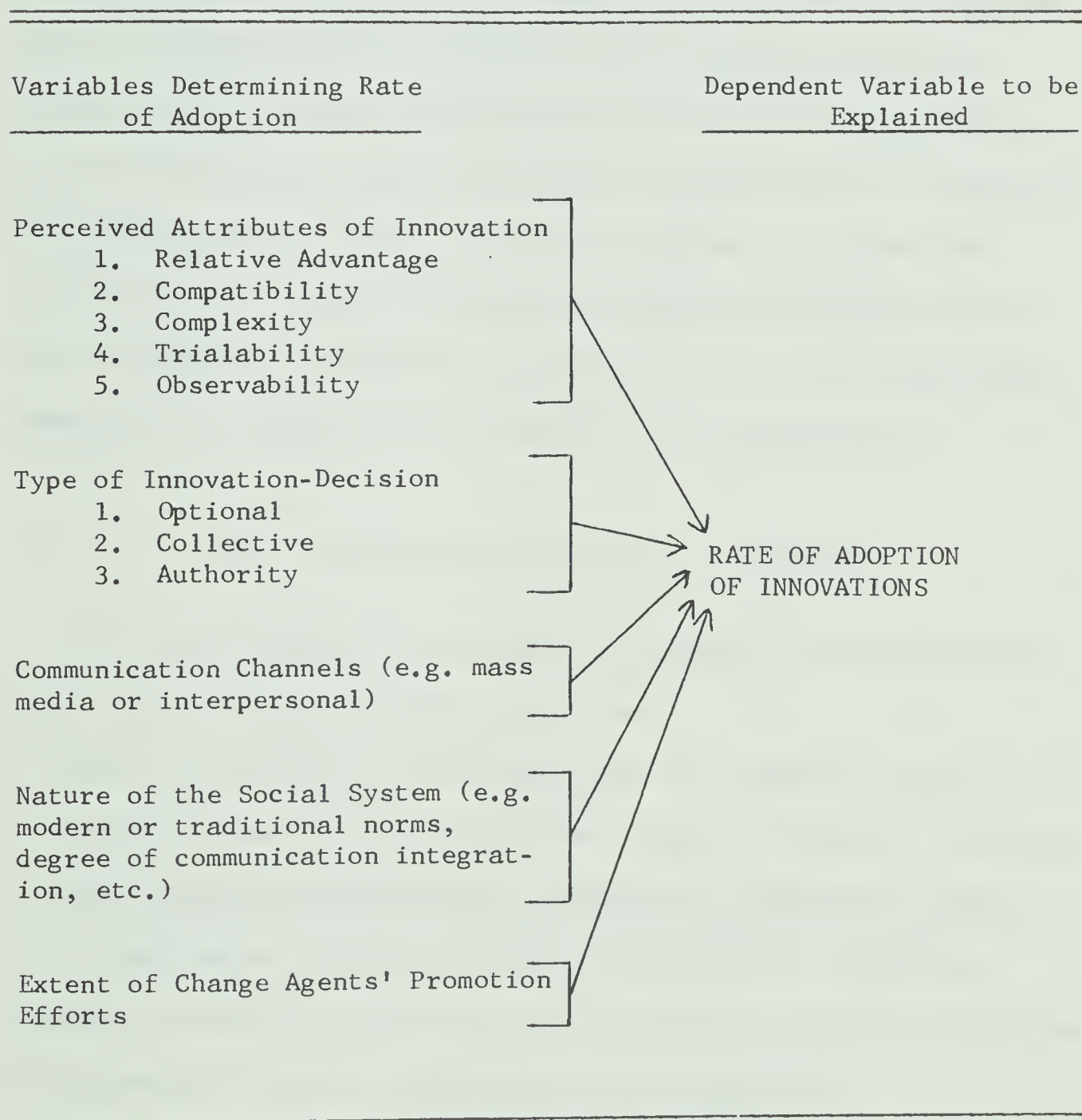
have been attributed relatively little significance by researchers of the adoption process. In any case, a large amount of effort has been expended in studying the perceptions, attitudes, and characteristics of superintendents and school principals, while little research effort appears to have been devoted to classroom teachers as respondents to innovation. As Miller summed up in a review of the change role of classroom teachers, "Too many descriptions of the change process stop after paying respects to the key role of the administrator." Miller concluded that the change role of classroom teachers remains "largely untapped by researchers in the dynamics of change." (Miller, 1967, p.360)

Thus, in addition to the perceived need at the present time for inquiry into the initial impact made by the new curriculum at the instructional level, this study of the adoption of the 1971 Alberta social studies curriculum acknowledges our need for greater understanding of factors which influence rate of adoption of innovations and the potential usefulness in planned educational change of the recent paradigm of Rogers and Shoemaker (1971). This study recognizes further that there is a need for research in which the opinions, perceptions, and personal attributes of classroom teachers are accorded significant consideration.

III. The Purpose of This Research Project

Two broad problems relating to the implementation of the 1971

Figure 1
A Paradigm of Variables Determining the Rate of
Adoption of Innovations



Alberta Social Studies Curriculum for Elementary Schools have been perceived to exist. This research project is accordingly characterized by dual purposes: 1. to ascertain the nature of classroom teachers' perceptions of the new Alberta social studies curriculum, and 2. to investigate the extent to which adoption of the new Alberta social studies curriculum is influenced by perceptions and opinions of the curriculum and personal characteristics of educators at the instructional level. Particular emphasis is placed upon attempting to determine the influence on rate of adoption of the 1971 curriculum of teachers' perceptions of its relative advantage, compatibility, complexity, trialability, and observability.

IV. Specific Questions to be Investigated

The dual purposes of the study are expanded for research purposes into the following seven questions.

1. What is the nature of the perceptions of elementary teachers at different grade levels and different stages of adoption regarding the 1971 Alberta Social Studies Curriculum for Elementary Schools?
2. To what extent was the new curriculum adopted by classroom teachers in May, 1972, and what are the prospects that the curriculum in its present form will eventually be fully adopted?
3. Is rate of adoption of the new Alberta social studies curriculum influenced by teachers' perceptions of the relative advantage, compatibility, complexity, trialability, and observability of the

new curriculum?

4. To what extent is rate of adoption of the new Alberta social studies curriculum influenced by teachers' perceptions of the extent of the promotion efforts of the following change-agent personnel:

- (a) principal (or vice-principal)?
- (b) supervisory staff (superintendent, supervisor, curricular associate)?
- (c) other teachers?

5. Is rate of adoption of the new curriculum influenced by the perceived amount of assistance to implement that teachers have received through in-service?

6. What types of in-service preparation do teachers prefer to assist them to implement the new social studies curriculum?

7. Is rate of adoption of the new Alberta social studies influenced by the following specific teacher characteristics:

- (a) years of teaching experience?
- (b) amount of professional training?
- (c) social studies background?
- (d) specialized training in the new social studies?
- (e) elementary grade level taught?

V. Importance of the Study

Importance to the Province of Alberta

According to the implications of Daniel Stufflebeam's model of

curriculum evaluation processes, a research project of this type should result in recommendations being made that will enable the new curriculum to be modified so as to better achieve its intended purpose while facilitating its fuller implementation. Stufflebeam conceptualized four kinds of evaluation activity: evaluation of context, of input, of process, and of product. At the final two stages, which occur after the innovation has been implemented, the evaluation researcher might ask, respectively: Is the selected input working as was intended and how can it be refined to better achieve its intended purpose? And what is the feasibility, quality, efficiency, and effectiveness of the input in responding to the need or problem involved? (Cited in Guba, 1967, pp.33-34) It is indeed hoped that the findings of the project will suggest the kinds of steps that might be taken to facilitate improved social studies instruction in the elementary schools of this province.

Importance to Educational Research

A stronger conceptual structure of factors which affect the rate of adoption of educational innovations must be devised if planned change in education is to realize its full potential. In particular, Rogers' theory about attributes of an innovation affecting rate of adoption is recognized as having important implications for educational innovation (Kohl, 1969, p.120) but as an area requiring much additional investigation, particularly in situations where classroom teachers are respondents. This research project

represents an attempt to further what is presently known about ways in which implementation of educational innovations can be fostered.

VI. Delimitation of the Study

The focus of this research is the adoption of the 1971 Alberta Social Studies Curriculum for Elementary Schools. One major purpose of the study is to investigate the nature of the reactions to the new curriculum of the elementary social studies teachers of Alberta. A second purpose seeks to investigate factors which might have influenced the rate of adoption of the innovation. While it is fully appreciated that a number of additional features of the new curriculum and its diffusion might be studied and are in need of research, no attempt to investigate them is made in this project.

VII. Assumptions Underlying the Study

Two basic assumptions underlie this research project. Firstly, it is assumed that "rate of adoption" indices calculated for the purposes of this study, although not necessarily synonymous with "rate of adoption" as defined by Rogers, are acceptable as rate of adoption indices. Secondly, it is assumed that teachers' perceptions of the characteristics of the new curriculum are not artifacts of the degree of adoption that has been accomplished. Rogers and Shoemaker (1971) have drawn attention to the possibility that, for example, Full-Adopters might tend to rationalise their

position in terms of relatively positive perceptions. (Rogers & Shoemaker, 1971, p.169) It follows that the danger also exists that Non-Adopters might tend to rationalise their positions in terms of relatively negative perceptions.

VIII. A Definition of Terms Used in this Report

An innovation. The definition used in this study is that of Rogers and Shoemaker:

...an idea, practice or object perceived as new by an individual. It matters little, so far as human behavior is concerned, whether or not the idea is 'objectively' new as measured by the lapse of time since its first use or discovery. It is the perceived or subjective newness of the idea for the individual that determines his reaction to it. If the idea seems new to the individual, it is an innovation. (Rogers & Shoemaker, 1971, p.19)

A Change Agent is defined by Rogers and Shoemaker as "a professional who influences innovation-decisions in a direction deemed desirable by a change agency." (Rogers & Shoemaker, 1971, p.248) The term is extended for the purpose of this study to include all those professionals with whom a teacher might come into contact and who might influence him in his adoption of any given innovation: the principal (or vice-principal), supervisory personnel (superintendent, supervisor, or curricular associate), and other teachers.

Rate of Adoption as used in this study is similar to "degree of implementation" as defined by Gross, Giacquinta, and Bernstein:

...the extent to which, at a given point in time, the organizational behavior of members conforms to an organizational pattern. Put another way, degree of implementation refers to the extent to which organizational members have changed their behavior so that it is congruent with the behavior patterns required by the innovation. (Gross, Giacuinta, & Bernstein, 1971, p.16)

Rogers and Shoemaker (1971) state that "Rate of Adoption is the relative speed with which an innovation is adopted by members of a social system. It is generally measured as the number of receivers who adopt a new idea in a specified time period." (Rogers and Shoemaker, 1971, p.157) Rogers and Shoemaker point out, however, that consideration of the element of time in the measurement of rate of adoption imposes a limitation on the research because it assumes accurate recall on the part of respondents. (p.78) For the purposes of this research, time is not considered in the determination of rate of adoption indices. Thus it is not claimed that rate of adoption as defined in this study is necessarily synonymous with the term as used by Rogers and Shoemaker.

The New Social Studies. This term, whenever referred to, is intended to be synonymous with the 1971 Alberta Social Studies Curriculum for Elementary Schools.

The Innovation Adoption Inventory (Section A of the research testing instrument) is an inventory of ten items which were utilized to determine rate of adoption indices for all adopters of the innovation.

The Innovation Adoption Scale is a scale with a 5-point range on which is located the rate of adoption index of each adopter of

the 1971 Alberta social studies curriculum.

Non-Familiar: an elementary social studies teacher who, at the time of the research, claimed to be not familiar with the 1971 Alberta social studies curriculum, or the contents of the Elementary Social Studies Handbook, Experiences in Decision Making.

Non-Adopter: an elementary teacher of social studies who claimed to be familiar with the 1971 Alberta social studies curriculum but to be making no attempt to teach it at the point in time of this research (May, 1972).

Partial-Adopter: an elementary teacher of social studies whose rate of adoption index on the Innovation Adoption Scale was located below the fiftieth percentile for all adopters.

Full-Adopter: an elementary social studies teacher whose rate of adoption index on the Innovation Adoption Scale was located at or above the fiftieth percentile for all adopters.

Relative Advantage is the degree to which the 1971 Alberta Social Studies Curriculum for Elementary Schools is better than the idea it supercedes (the previous Alberta Social Studies Curriculum for Elementary Schools).

Compatibility is the degree to which the philosophy of the new Alberta social studies curriculum is consistent with teachers' values and cultural norms.

Complexity is the degree to which the new Alberta social studies curriculum is relatively difficult to understand and use.

Trialability is the degree to which the new Alberta social studies curriculum can be tried out on a limited basis.

Observability is the degree to which the results of the new Alberta social studies curriculum are easily described and discussed with others.

IX. Organization of the Thesis

In this chapter, the basic problem that is seen to exist was introduced. In keeping with the perceived nature of the problem, the study is characterized by dual purposes, which were described. Subsequently, the specific research questions to be investigated were delineated. The delimitation of the research project was stated, two basic assumptions which underlie the project were described, and the significance that the study is expected to have was outlined. Finally, terms that are used in the remainder of the report were defined.

In the next chapter, in order to bring the problem more sharply into focus, the literature relating to pertinent aspects of the change process in education is reviewed, and the nature and development of the 1971 Alberta social studies curriculum is briefly described. Concurrently the format of specific hypotheses and research questions to be investigated is established.

In Chapter III, the research methodologies are reviewed in considerable depth. The population that comprised the sample for

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the study is described, and the procedures involved in collecting the research data are delineated. Steps taken to ensure that the testing instrument was characterized by a degree of known validity are outlined, as are the statistical methods employed to analyse the research data. To conclude the chapter, the limitations that characterized the study are discussed.

In Chapter IV, the results of analyses of data relevant to the hypotheses and research questions are described in detail. In the final chapter, the study is summarized, conclusions which could be justified on the basis of the findings of this study are formulated, and recommendations for future research are suggested.

X. Summary of Chapter I

Change is very much a part of our world today, and our schools as social institutions, are besieged with pressures for change by both external and internal forces. But much remains unknown about change, especially in education. Hence the implementation of new procedures, techniques, and curricula in our schools is a process that should be accompanied by close and systematic investigation and evaluation. The purpose of this study is to examine aspects of a recent curriculum change in Alberta. Specifically, the reactions of teachers to the 1971 Alberta Social Studies Curriculum for Elementary Schools are ascertained, and the extent to which selected factors have influenced the rate of adoption of the

curriculum in question is investigated. This project, it is hoped, will produce evidence that will contribute to the betterment of the teaching of the social studies in this province, while furthering what is presently known about the dynamics of the change process.

CHAPTER II

THE RATIONALE FOR THE STUDY

In Chapter I two closely interrelated problems relating to the implementation of the 1971 Alberta Social Studies Curriculum for Elementary Schools were perceived to be in need of investigation. The first problem pertains to the need at the present time for investigation of the nature of the perceptions of the elementary teachers of Alberta regarding the feasibility, suitability, and effectiveness of the new social studies curriculum. The second problem concerns the need in educational research for investigation of factors which affect the rate of adoption of educational innovations, particularly as such factors relate to classroom teachers.

In the first section of this chapter, in order to bring the two perceived problems more sharply into focus, current literature devoted to aspects of educational change is reviewed, and the nature of the new Alberta social studies curriculum is described. Concurrently, hypotheses and research questions for investigation in this project are formulated. In the second section of the present chapter, the hypotheses and research questions are expanded into a format believed to be appropriate to the research data and the statistical procedures available.

I. Review of the Literature

The object of this review of literature and related research is to establish a conceptual framework within which to investigate those problems pertaining to the adoption of the 1971 Alberta social studies curriculum that were raised in Chapter 1. Repeatedly throughout this section of the chapter, the research into adoption of innovations by sociologist Everett Rogers is referred to. In particular, a recent description of the adoption process as conceptualized by Rogers and F. Floyd Shoemaker (1971) on the basis of a comprehensive survey of innovation research projects is acknowledged and utilized.

Initially, to provide an overview of the study, Rogers and Shoemaker's model of the process of the adoption of innovations is presented and discussed. As part of this preliminary discussion, Rogers' recent (1971) paradigm of factors which affect the rate of adoption of innovations is introduced. Subsequently, those particular factors which are felt to have greatest relevance to the problems being investigated are treated to comprehensive review. That is, current literature relating to the influence on rate of adoption of the perceived attributes of an innovation is reviewed, as is literature dealing with the means by which classroom teachers might be assisted or encouraged by various change agent personnel to implement curriculum change. A brief account of research findings

related to those personal teacher variables that might influence the process of adoption of educational innovations is also contained in this section of the chapter.

Finally, the nature of the 1971 Alberta Social Studies Curriculum for Elementary Schools is described in sufficient detail as to ensure that, at the end of this section of the chapter, the reader is aware of the total conceptual setting in which this research project was conducted.

A Description of the Process of the Adoption of Innovations

Rogers says that it was Wilkening who first pointed out that an individual's decision to adopt an innovation was a process composed of stages or steps. (Rogers, 1962, p.80) Wilkening listed four stages of the adoption process: awareness, obtaining information, conviction and trial, and adoption. (Wilkening, 1952, p.16) Although more recent investigators have not been able to agree as to the number of stages in the adoption process, a number of research projects have concluded that the concept of "stages" is a valid one. (Rogers, 1962, p.80) In 1962, a comprehensive survey of research literature and projects by Rogers led to his proposal that

...there seem to be five main functions in the adoption process, and each of these is assigned to a stage. The number of stages in the process is selected primarily on the basis of ease of conceptualization. (Rogers, 1962, p.79)

Rogers' five stages were defined as follows:

The Awareness Stage, at which the individual is exposed to the innovation but lacks complete information about it.

The Interest Stage, at which the individual becomes interested in the new idea and seeks additional information about it.

The Evaluation Stage, at which the individual mentally applies the innovation to his present and anticipated future situations, and then decides whether or not to try it.

The Trial Stage, at which the individual uses the innovation on a small scale in order to determine its utility in his own situation.

The Adoption Stage, at which the individual considers the results of the trial, and decides whether to adopt or reject the innovation.

(Rogers, 1962, pp.81-86)

In more recent years, this model has been perceived as being characterized by a number of inadequacies. For example, Gross, Giacquinta, and Bernstein (1971) observed that

Its lack of utility is due to certain of its assumptions which are not applicable to the implementation of organizational innovations. One of its basic assumptions is that during any of the intermediate stages between awareness and use, the individual is free to decide himself whether the innovation shall be tried, and if tried, whether it should be continued. ...This assumption does not apply to major educational innovations in most school situations, for example, those in which teachers are asked to redefine their roles by their superordinates, or in cases where compensatory programs for lower-class urban schools have been designed by top administrators and teachers must carry them out. (Gross et. al., 1971, p.21)

Rogers himself added further criticism when, in 1971, he and Shoemaker presented their revised model of the adoption process. The original model, they claimed, was "too simple," and was characterized by "numerous deficiencies." Among its perceived deficiencies are:

1. It implies that the process always ends in adoption decisions whereas in reality rejection may also be a likely outcome.
2. The five stages do not always occur in the specified order. In reality, some stages may be skipped, and evaluation occurs throughout the entire process.
3. The process seldom ends with adoption, as further information-seeking may occur to confirm or reinforce the decision, or the individual may later switch from adoption to rejection (a discontinuance). (Rogers and Shoemaker, 1971, p.101)

Rogers and Shoemaker's revised model appears to overcome some of the deficiencies described above. It is conceptualized as a four stage "innovation-decision process" which is influenced by several types of variables. The stages of the revised model are as follows.

Knowledge. The individual is exposed to the innovation's existence and gains some understanding of how it functions.

Persuasion. The individual forms a favourable or unfavourable attitude toward the innovation.

Decision. The individual engages in activities which lead to a choice to adopt or reject the innovation.

Confirmation. The individual seeks reinforcement for the innovation-decision he has made, but he may reverse his previous decision if exposed to conflicting messages about the innovation. (Rogers and Shoemaker, 1971, p.103)

According to Rogers and Shoemaker's revised rationale, the innovation-decision process is influenced by five types of variables. These are classified and defined in the following manner.

The Attributes of the Innovation: These are delineated by Rogers and Shoemaker as the relative advantage, compatibility, complexity, trialability and observability of the innovation. (pp.22-23)

The Nature of the Communication Channels: The communication channels that are utilized to diffuse the innovation also may have an influence on the innovation's rate of adoption. For example, mass media channels should be used to create awareness-knowledge of an innovation, but interpersonal channels are more effective in speeding rate of adoption at the persuasion stage. (pp.23-24)

The Nature of the Social System: Especially important are the norms of the social system which, according to Rogers and Shoemaker, "define a range of tolerable behavior and serve as a guide or a standard for the members of a social system." (p.30)

The Extent of Opinion Leaders' and Change Agents' Promotion Efforts: Opinion leaders and change agents exert their influence to obtain the adoption of new ideas. Opinion leaders are usually internal to the social system, while change agents represent external agencies. (p.35) The relationship between rate of adoption and change agents' efforts seem to be clear, though not direct and

linear. There is a greater payoff from a given amount of change agent activity at certain stages in an innovation's diffusion. (p.160)

The Type of Innovation-Decision: Optional decisions are those made by an individual regardless of the decisions of other members of the system. Collective decisions are those which individuals in a social system agree to make by consensus. Authority decisions are those forced upon an individual by someone in a superordinate power position, such as a supervisor in a bureaucratic organization. (p.36)

Rogers and Shoemaker appear to answer the criticism of Gross et. al. (1971) by asserting that many educational innovations are the consequence of authority decisions. With innovations of this type, the knowledge, persuasion, and decision stages of the innovation-decision process are not entered into by the adoption unit. An authoritative decision is conveyed to the adoption unit, who must then implement it. However, there may be a discrepancy between an individual's attitude towards the innovation and the overt behavior demanded by the decision unit. (Rogers & Shoemaker, 1971, pp.304-316)

The "innovation-decision" model described above, and the paradigm of variables believed to influence the rate of adoption of innovations, represent a conceptual structure within which the implementation and adoption of the 1971 Alberta social studies curriculum might be viewed. About three and a half years have elapsed since the innovation was first presented for introduction into Alberta schools, but to

date its usage has not been arbitrarily imposed. One would expect that at the present time adoption of the new curriculum by the classroom teachers of Alberta is dependent upon a combination of "authority" and "optional" decisions. That is, classroom teachers did not participate in the development of the new curriculum, and therefore did not enter into the preliminary stages of the decision to present the new curriculum for implementation in the schools of the province. Nevertheless, adoption of the innovation has not been enforced. Therefore most teachers who have adopted the new curriculum might be said to have done so subsequent to their experiences at the first stages of Rogers and Shoemaker's innovation-decision process as it applied to them personally. Thus one would expect that at any recent point in time each stage of the innovation-decision continuum was occupied by mutually exclusive groups of elementary social studies teachers. One would also expect the location on the continuum of any particular innovator to be largely the result of various of the factors which have been presented as affecting rate of adoption of innovations.

The Attributes of an Innovation and Rate of Adoption

The first component of Rogers and Shoemaker's paradigm of factors affecting adoption of innovations is the attributes of the innovation. Rogers and Shoemaker point out that it is the characteristics of innovations as perceived by the receivers, not as classified by experts or change agents, which affect rate of adoption:

Like beauty, innovations exist only in the eye of the beholder. And it is the beholder's perceptions which influence the beholder's behavior. (Rogers & Shoemaker, 1971, p.138)

John W. Kohl (1969), in referring to the research efforts of Rogers stated that:

Viewing the adoption of an innovation as a process consisting of stages taking place over time through an individual influenced by his perception of the characteristics of the given innovation represents a conceptual "break-through" as worthy of attention in the field of education as it is in agriculture and in medicine. (Kohl, 1969, p.120)

But significant as this contribution by Rogers to our understanding of the adoption process has been, Rogers and Shoemaker assert that the goal of a standard classification scheme for describing the perceived attributes of an innovation in universal terms has not yet been reached. (Rogers & Shoemaker, 1971, p.137) They claim only that research indicates that there are five most important and conceptually distinct characteristics of innovations in explaining rate of adoption. (p.23) These they define as follows.

1. Relative Advantage is the degree to which an innovation is perceived as better than the idea it supercedes. The degree of relative advantage may be measured in economic terms but often social prestige factors, convenience, and satisfaction are also important components. It matters little whether the innovation has a great deal of "objective" advantage. What does matter is whether the individual perceives the innovation as being advantageous. The greater the perceived relative advantage of an innovation, the more rapid its rate of adoption.

2. Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of the receivers. An idea that is not compatible with the prevalent values and norms of the social system will not be adopted as rapidly as an innovation that is compatible. The adoption of an incompatible innovation often requires the prior adoption of a new value system.

3. Complexity is the degree to which an innovation is perceived as difficult to understand and use. Some innovations are readily understood by most members of a social system; others are not and will be adopted more slowly...In general those new ideas requiring little additional learning investment on the part of the receiver will be adopted more rapidly than innovations requiring the adopter to develop new skills and understandings.

4. Trialability (Divisibility) is the degree to which an innovation may be experimented with on a limited basis. New ideas which can be tried on the installment plan will generally be adopted more quickly than innovations which are not divisible...Essentially, an innovation that is trialable represents less risk to the individual who is considering it.

5. Observability (Communicability) is the degree to which the results of an innovation are visible to others. The easier it is for an individual to see the results of an innovation, the more likely he is to adopt it. (Rogers & Shoemaker, 1971, pp.22-23)

Rogers and Shoemaker summarise their discussion of the influence on rate of adoption of each of the five characteristics by presenting appropriate generalizations.

Generalization 1. "The relative advantage of a new idea, as perceived by members of a social system, is positively related to its rate of adoption." (p.142) Of 43 studies surveyed by

Rogers and Shoemaker, 67% support this generalization.

Generalization 2. "The compatibility of the new idea, as perceived by members of a social system, is positively related to its rate of adoption." (p.152) Of 27 studies surveyed, 67% supported the generalization.

Generalization 3. "The complexity of an innovation, as perceived by members of a social system, is negatively related to its rate of adoption." (p.154) Of 16 studies surveyed, 56% supported the generalization.

Generalization 4. "The trialability of an innovation, as perceived by members of a social system, is positively related to its rate of adoption." (p.155) Of 13 studies surveyed, 69% supported the generalization.

Generalization 5. "The observability of an innovation, as perceived by members of a social system, is positively related to its rate of adoption." (p.156) Of nine studies surveyed, 78% supported the generalization.

As has been said, Rogers does not claim that the characteristics of an innovation described above are necessarily a complete list of such characteristics, but merely that research indicates them to be the most important attributes in explaining rate of adoption. Much further research is said to be necessary before the concept of perceived characteristics of an innovation can be utilized to assist in the successful diffusion of desired change. (Rogers & Shoemaker, 1971, p.135) Indeed, a number of researchers infer

that Rogers' classification is incomplete. To Rogers' list, Havelock adds "Scientific Status of the Knowledge" (the degree to which the knowledge of an innovation is possessed of reliability, validity, generality, internal consistency, and congruence with other scientific theories) and "Value Loading" (the degree to which information about an innovation is biased or unscientific in the eyes of those who hold most strongly to scientific values). (Havelock, 1969, Section 8, p.38)

Miles (1964) identifies cost, technological factors, associated materials, implementation supports, and innovation/system congruence as properties of an innovation which influence rate of adoption. However, "cost" as defined by Miles is recognized by Rogers as one aspect of relative advantage. "Technological factors" and "implementation supports," as defined by Miles, are implied in Rogers' description of complexity. Similarly, "Innovation/system congruence" might be partly subsumed under Rogers' compatibility. For, in describing this attribute, Miles states that

Any innovation implying or requiring important value changes in acceptors (such as those dealing with interpersonal relationships, race relations, religious commitments, etc.) will encounter difficulty, since much more than the nature of the innovation itself is at stake. (Miles, 1964, p.639)

However, Rogers does not appear to have incorporated "associated materials" into any of his components.

Miller (1971), reflecting on the attributes of successful educational innovations claimed that

An educational innovation is not an isolated phenomenon, but the product of a certain specified manner in which people view themselves and the institutions they create. Furthermore, innovations usually are rooted in some philosophical assumptions that, in turn, have value for that society. The inadequacy of a new idea often lies not in the fact of its newness, but in the inability to clarify its meaning in the cultural-philosophic sense mentioned. It is vital to step outside of the culture to see what position the innovation occupies and what consequences it might hold for the future. (Miller, 1971, p.508)

The similarity of this rationale to Rogers' definition of compatibility is clear.

On the basis of research findings, Chesler, Schmuck, and Lippitt (1963) asserted that teachers will try a new practice if it will help solve problems important to them and their pupils, if it is easily adaptable to their teaching styles, does not demand a great investment of time and energy, and if the school administration will support new teaching practices. Rogers' respective characteristics of relative advantage, complexity, and compatibility would appear to incorporate these properties.

Johnson (1969) alluded to Rogers' characteristics of compatibility, relative advantage, and communicability in claiming that

Any innovation that might call for unconventional or unusual behavior is resisted... Teachers tend to reject any change that requires much teacher time, or materials that are not readily available, or violation of the norms of conformity and conventionality. Furthermore, one cannot assume that teachers will communicate with other teachers about a proposed innovation. (Johnson, 1969, p.148)

It would appear, then, that although a "standard classification scheme" of attributes of an innovation has not yet been reached, the existence of a general classification scheme resembling that conceptualized by Rogers and Shoemaker seems clearly to exist.

Two specific research projects which investigated Rogers' theory about the influence of the five attributes of an innovation on rate of adoption are felt to have special significance for subsequent research projects of a similar nature. Carlson's (1965b) analysis of the communication of modern math among school administrators in Pennsylvania and West Virginia has been described as "probably the best piece of educational diffusion research." (Rogers & Shoemaker, 1971, p.61) Carlson's research indicated that the characteristics of an innovation only partially account for rate of adoption, and seem to support Rogers' position that no conclusive data are yet available which give positive evidence on the degree to which the characteristics of an innovation affect its rate of adoption. Research by Kohl (1969) among Oregon school superintendents suggested that the characteristics of an innovation, as defined by Rogers, both affect rate of adoption of the innovation and distinguish the stages in the adoption process. It would appear from the findings of Kohl's research that compatibility is the strongest component over the entire adoption process. Relative advantage and compatibility distinguished the decision stage, while complexity, observability, and trialability were reported to be most important at the knowledge

stage. However these findings do not concur with the claims of Rogers and Shoemaker (1971) as to the ways in which the characteristics of an innovation influence the rate of adoption of any particular innovation. That is,

1. At the knowledge stage, the innovation's complexity and compatibility should be most important.
2. At the persuasion stage, the innovation's relative advantage and observability should be most important.
3. At the decision stage, the innovation's trialability should be most important. (Rogers & Shoemaker, 1971, p.160)

On the basis of the research projects and related literature surveyed above, three generalizations are forwarded regarding attributes of an innovation and rate of adoption:

1. The characteristics of an innovation, as perceived by members of a social system, influence the rate of adoption of the innovation.
2. Much further research is needed if the conceptual structure of each of the attributes of an innovation which affect the adoption process is to be established.
3. The attributes as defined by Rogers and Shoemaker are not of equivalent significance in affecting rate of adoption. The relative importance of each characteristic is dependent in part upon the stage of the adoption process at which it is perceived.

The following hypothesis based upon Rogers and Shoemaker's generalizations is presented for investigation as it applies to the

adoption of the 1971 Alberta social studies curriculum by the classroom teachers of this province.

Teachers tend to adopt more quickly those innovations which they perceive to have a high relative advantage, compatibility, trialability, and observability, and a low complexity.

In addition, the following question is asked:

Which of the attributes of an innovation as perceived by classroom teachers are most important in distinguishing between the various stages of the process of adoption of the 1971 Alberta social studies curriculum?

Assisting Teachers to Adopt Educational Innovations

Carlson (1965a) and Rogers (1962) have both noted that the relative slowness with which schools, as compared with other social systems, adopt innovations may derive from the absence in the educational setting of effective change agents. Furthermore, a review of literature indicates that there is little consensus among educational authorities as to who in education is best suited to perform the change agent function or the types of duties that the change agent should foster.

Brickell (1961) claimed that if large scale instructional change is to be disseminated in schools it is administrators and not classroom teachers who must be convinced of its value. In particular, Brickell claimed that major educational changes cannot be accomplished successfully in a school system unless they are actively promoted by the school superintendent. (Brickell, 1961, p.12) By contrast (and perhaps more specific to the Canadian scene) MacKay (1964) asserted that it is the principal who must

assume leadership if program application and implementation are to be successfully effected in a school. The same authority has inferred, however, that the successful principal is more an "opinion leader" than a "change agent" and that he must not confuse his role with that of the change agent of medical or rural sociology:

He may think of himself as "selling the idea" to the staff; in reality, the staff may see him as an autocrat imposing his will arbitrarily upon them. While the innovation is adopted, the unplanned-for results may be low staff morale and an increasing level of resistance to any ideas coming from the principal. (MacKay, 1966, p.60)

MacKay's observation would appear to substantiate the findings of a research project conducted by Chesler, Schmuck, and Lippitt (1963) into the role of the principal in facilitating the adoption of innovations in elementary schools. Chesler et. al. found a high and significant correlation between the amount of staff innovativeness and the staff's perception of the principal's support for innovative teaching. They concluded that the principal's chief function in change is as facilitator and encourager, rather than as innovator himself.

Recently, subsequent to a Canadian research project, it was stated that

Of twenty-six supervisory positions considered, the principal was rated the most influential in affecting the behavior of teachers with respect to the content, processes, and outcomes of their teaching. (Parsons, 1971, p.6)

"Other teachers" ranked second in perceived influence behind the principal. However Erickson (1965) has written that the tendency is developing for teachers to look beyond their principal to colleagues, subject-matter specialists, and professors for help in solving classroom problems. As a result, Erickson feels, leadership in the implementation of new curricula is no longer restricted to any one group or figure. Similarly, the findings of a recent Alberta study indicate that while up to thirty-five percent of the variation in innovativeness for Alberta schools may be related to the attitudes of influential members of the school staff, including the principal, it is doubtful that the principal is a key figure in the change process (Wiens, 1967).

Heathers (1971) suggested that who actually occupies the change-agent role is of secondary importance. According to Heathers, what is vital if educational innovation is to be effective is the adequate training of those involved in the innovation:

The most crucial factor in making an innovation at the instructional level is staff re-education. The great majority of local change programs in schools fall short of success in large part because of a failure to provide school leaders and teachers with the education that would enable them to conduct instruction that meets the purpose of the innovation. (Heathers, 1971, p.14)

Following two surveys of the schools in New York State in 1961, Brickell (1964) drew two major conclusions about initiating change in teachers' behavior. First, he found that the most persuasive way of learning about an innovation is to observe successful programs in action. The second conclusion Brickell arrived at was that the most successful innovations are accompanied by the most elaborate help to teachers as they engage in the new behaviors. According to Brickell, the amount of help provided teachers is far more critical in determining the success of an innovation than the initial faculty reaction to the change.

A finding similar to Brickell's second conclusion has been reported by Peterman (1967). Peterman's Michigan study examined the relationship between in-service education and the innovativeness of classroom teachers. Peterman concluded, "Teachers who have more contacts with outside sources through in-service education have more innovations in the classroom." (Peterman, 1967, p.2800)

A research project in Saskatoon schools by Newton (1967) has implications for Brickell's first conclusion. Newton found that, of nine possible means of in-service training, teachers were most desirous of seeing new courses being taught and of hearing the reactions of colleagues who had been involved in pilot projects. (p.39) However, of in-service activities that had actually been made available to teachers implementing a new program Newton found that individual study was perceived to have been of most assistance. A pre-school workshop ranked second. (Newton, 1967, pp.39-40)

Following a review of the literature, it is first of all concluded that the role of the change agent is of considerable importance in the execution of successful curriculum change, and that adoption of educational innovations is facilitated by the availability of in-service activities. As a result of these conclusions, the following hypotheses are presented for investigation as they apply to the implementation of the 1971 Alberta social studies curriculum.

Teachers who perceive that they have received more assistance and encouragement from

- (a) the principal (or vice-principal)
- (b) supervisory personnel (supervisor, superintendent, curricular associate)
- (c) other teachers,

tend to adopt innovations more quickly.

Teachers who perceive they have received more assistance from in-service activities tend to adopt innovations more quickly.

But it is also concluded from the review of literature that there is little consensus as to who in education can most effectively fill the change agent role. Perhaps this is because one possibly important aspect of change agent influence appears to have been ignored in research into the adoption of educational innovations. That is, it may be that different change agent functions are more effective at different stages of the adoption process, a possibility which Rogers and Shoemaker (1971) alluded to in their discussion of the influence on rate of adoption of different types of communication channels. (Rogers & Shoemaker, 1971, p.159) Finally, it is concluded that the types of in-service activities which should

be made available to teachers to assist them to implement change are perhaps partially universal, but dependent in part upon local factors and the nature of the change being advocated. As a result of these conclusions, this research project seeks to answer the following questions:

Which of the following means of assistance as perceived by teachers are most important in distinguishing between the various stages of the process of adoption of the 1971 Alberta social studies curriculum:

- (a) assistance from principal (or vice-principal)?
- (b) assistance from supervisory personnel (supervisor, superintendent, curricular associate)?
- (c) assistance from other teachers?
- (d) assistance from in-service?

What types of in-service activities do teachers prefer to assist them to implement the new social studies curriculum?

The Influence of Personal and Situational Variables on Adoption of Educational Innovations

Rogers and Shoemaker contend that a great deal of effort has been expended in studying "people" differences in innovativeness. (Rogers & Shoemaker, 1971, p.135) Such differences were classified by Rogers (1962) as one aspect of "antecedents" to change, because of their presence in the situation prior to the introduction of the innovation. (Rogers, 1962, p.305) In this section of the review an attempt is made to establish the ways in which personal differences in teachers might be expected to affect the rate of adoption of the new Alberta social studies curriculum.

Years of Teaching Experience

There are many inconsistencies in the literature on the relationship of teaching experience and adoption of educational innovations. Ross (1951) reported that teachers tend to be most innovative during the intermediate years of professional service, and that three years or less of experience is "markedly related to the least adaptable groups." (Ross, 1951, p.145) Krey (1968) found that age is a significant factor in teachers' perceptions of curriculum implementation activities and that teachers with 15 - 19 years of experience perceived such activities more favourably. The findings of Brickell's study (1962) in New York State also implied that the beginning teacher is not very innovative. According to Brickell, this is so because of a failure on the part of colleges and universities to equip prospective teachers with specific instructional skills and techniques. (Brickell, 1962, p.85) Rogers and Shoemaker, following a comprehensive survey of literature in several fields generalized that earlier adopters are no different from later adopters in age. (Rogers & Shoemaker, 1971, p.352) It might be expected that this generalization would have implications for investigation of the relationship between rate of adoption of educational innovations and years of teaching experience.

Years of Professional Training

Lionberger states that in rural sociology studies it is generally accepted that one of the factors positively related with

adoption of innovations is amount of education. (Lionberger, 1960, pp.84-98) In educational research, similar relationships have also been discovered. Mort and Cornell (1941) implied this following a study in Pennsylvania.

The single measure dealing with teachers which was found to have the greatest relationship with the adaptability of a school was the average number of years of training of teachers beyond high school. (Mort & Cornell, 1941, p.277)

Ross (1951), however, claimed that this relationship is not linear and that five years of training is an optimum amount favouring innovativeness. (Ross, 1951, p.136) Yakimishyn (1967) in a study in a Canadian setting, found that the teacher group with three to five years of post secondary education was more innovative than the group with six years or more.

A recent survey of research projects by Rogers and Shoemaker, however, led to their generalization that earlier adopters have more years of education than later adopters. (Rogers & Shoemaker, 1971, p.354) For the purpose of this research the generalizations of Rogers and Shoemaker are accepted because of their basis of recent and widespread empirical research. Hence, the two following hypotheses are presented for investigation as they apply to the adoption by elementary teachers of the 1971 Alberta social studies curriculum.

There is no difference in rate of adoption of educational innovations among teachers with differing amounts of teaching experience.

Teachers who have more years of professional training tend to adopt innovations more quickly.

In addition, three questions involving personal and situational factors which appear to have no significant precedent in educational research but which are felt to be of importance as they apply to the adoption of the new Alberta social studies are posed for investigation.

Does rate of adoption of the 1971 Alberta social studies curriculum vary with elementary grade level taught?

Is there any difference in rate of adoption of the 1971 Alberta social studies curriculum for teachers who do have/do not have a major background in the social studies?

Is there any difference in rate of adoption of the 1971 Alberta social studies curriculum for teachers who do have/do not have University courses in the new social studies?

The New Alberta Social Studies Curriculum for Elementary Schools

The common factor of the two problem areas being investigated in this study is the 1971 Alberta Social Studies Curriculum for Elementary Schools. In the following pages, the development of the new curriculum is traced, its rationale is outlined, and recent statements about the reception accorded it by classroom teachers are presented.

Development

Alberta's "new" social studies grew out of a 1966 Conference on

the Social Studies Curriculum, Grades I-XII, sponsored by the Department of Education, Province of Alberta, and attended by Department of Education officials, instructors from a number of departments at Alberta universities, representatives of the Alberta Teachers' Association and various school boards, and Dr. B. G. Massialis, at that time Associate Professor of Education, the University of Michigan. Subsequent to the conference, a Department of Education committee was established to plan a new social studies curriculum for the schools of this province.

In January, 1969, the Department of Education made available to all Alberta teachers its publication, Tentative Course Outline for Social Studies, Grades I-XII, in the Province of Alberta, in which were outlined the philosophy and course content of a new Alberta social studies curriculum. Further descriptions pertaining to the 1969 tentative course outline were subsequently issued, culminating, for elementary teachers, with the distribution in early 1971 of the Elementary Social Studies Handbook, Experiences in Decision Making. Concurrent with these events, many school districts and divisions in the province initiated various types of in-service training to familiarise their teachers with the nature of the new curriculum, using as resource personnel either local supervisory staff, Department of Education personnel, University instructors, or A.T.A. Social Studies Council Workshop teams. University courses in social studies curriculum were simultaneously adapted to acquaint teachers with the new program and to assist and

encourage them in its implementation.

Rationale

The "new" Alberta social studies curriculum is distinguished from its predecessor chiefly by the priority of its objectives.

These have been listed as:

- (a) the internalisation of a value system
- (b) demonstration of social studies skills
- (c) the acquisition of knowledge. (Department of Education,

1969, p.3)

The value-orientation of the new Alberta curriculum derives from the assumption that

...schools must help students in their quest for a clear, consistent, and defensible system of values... In keeping with the basic tenets of democracy (and with optimism about the nature of man and the efficacy of democratic ideals), the new social studies invites free and open inquiry into the definition and application of individual and social values. Such inquiry will serve the humanistic goals of education by offering students experience in living and not just "preparation for living." (Department of Education, 1971, p.9)

The new curriculum is further distinguished by its flexibility.

That is, it

...allows for decisions to be made by those who will be affected by them. The objectives and content prescribed by the Department of Education are stated in the very broadest terms. Within this broad framework, called the master curriculum, teachers and students can practice responsible decision-making by planning together learning experiences which are significant and relevant to their own lives. (Department of Education, 1971, p.5)

In keeping with the priority given to value objectives, the new Alberta social studies program advocates that students engage in the specific steps of the valuing process. The valuing process, as described by Louis Rath (1966), involves three basic skills:

1. Choosing - identifying all known alternatives.
 - considering all known consequences of each alternative.
 - choosing freely from among alternatives.
2. Prizing - being happy with the choice.
 - affirming the choice, willingly and in public if necessary.
3. Acting - acting upon the choice.
 - repeating the action consistently in some pattern of life. (Department of Education, 1971, p.9)

It would appear that the newness of the 1971 curriculum lies more in processes than in content. As such, the new curriculum recommends both a "definite de-emphasis on 'covering' knowledge from history, geography, and the social sciences" and that "knowledge should be 'uncovered' not for its own sake but only as it is needed when students are engaging in the valuing process." (Department of Education, 1971, p.5) Techniques which might be employed to facilitate valuing are documented in the teachers' handbook, Experiences in Decision Making. In addition, a number of sample units are included in an appendix to the 1971 teachers' handbook, and others have since been developed and distributed for teachers'

reference and use.

Nevertheless, the Handbook indicates that the major responsibility for translating the new curriculum into effective learning experiences has been delegated to educators at the local level.

(Department of Education, 1971, p.21) Hence, the new curriculum might be said to represent a distinct challenge to the elementary school social studies teachers of Alberta in two conceptually different ways:

1. by the manifestation of its value-oriented rationale;
2. by the demands that it makes of the classroom teachers of Alberta as developers of social studies curriculum units, programs, materials, and activities.

The Nature of the Feedback Received to Date

Limited evidence exists as to the nature of teachers' perceptions of the "new" social studies curriculum. A recent (June, 1972) Department of Education newsletter both invited further feedback from teachers and remarked that

Although response to the new courses by teachers has tended to be generally favourable, there have been some expressions of concern and difficulty. These include problems in interpreting the broad general outlines, in developing curriculum and instruction in systems and schools, in gathering together suitable resource materials, in finding time to plan and organize the teaching-learning experiences. (Government of Alberta, 1972, p.1)

The remarks of an official of the Edmonton Public School Board substantiate that, particularly at the elementary level, aspects

of the new curriculum have created a number of problems for teachers. The official inferred that the Department of Education has not fulfilled its curriculum development responsibilities:

The Department seems to feel that all it has to do is to break new philosophical grounds, set up some admirable objectives, give a few examples, and that the teachers will do the rest. (Stolee, 1971, pp.2-3)

The official concluded that

Frankly, it is my opinion that the majority of teachers do not have the inclination, ability or time to do this type of curriculum development. (Stolee, 1971, p.3)

The same official, in a 1970 article in the A.T.A. Magazine claimed that teachers are particularly "uneasy" about the emphasis that the new curriculum places on values, and that widespread misunderstanding exists about the value orientation of the new curriculum:

...the ordinary teacher thinks he is going to have to become a propaganda agent, whereas in reality, if he teaches values properly, what he will do is to make his students almost impervious to propaganda of all types. (Stolee, 1970, p.28)

Another writer claimed recently that a number of people, including some teachers, have described the new social studies as a "Mickey-Mouse" course. (Frankcombe, 1972, p.17) According to this authority, the chief criticism of the new curriculum is its neglect of the cognitive domain, a criticism which the writer felt derives mainly from a "misunderstanding" of the objectives of the new program.

Thus, a number of articles have been written about the new Alberta social studies curriculum, mostly indicating that its unique characteristics have been the cause of concern to classroom teachers. But no in-depth study of the nature of the reactions of social studies teachers to the new curriculum has yet been conducted, although as was forwarded in the first chapter of this report, such a project would appear to be consistent with established principles of curriculum development. This project seeks to answer the following questions in an attempt to ascertain the nature of the impact made on the elementary teachers of Alberta by the 1971 Alberta social studies curriculum.

To what extent had the new curriculum been adopted at the time of the research project (May, 1972)?

How are the major characteristics of the 1971 Alberta social studies curriculum perceived by teachers at different stages of adoption and at different grade levels of the elementary schools?

II. Statement of Hypotheses and Research Questions

Hypotheses that have been established relating to the adoption of the 1971 Alberta social studies curriculum for elementary schools are stated below in the format believed to be most appropriate to the statistical procedures available.

Hypothesis 1. Teachers tend to adopt more quickly those innovations which they perceive to have a high relative advantage, compatibility, trialability, and communicability, and a low complexity.

Null Hypothesis 1. There is no significant difference between the mean scores of teachers at different stages of adoption of the 1971 Alberta Social Studies Curriculum for Elementary Schools on

each of the following variables:

1. perceived relative advantage of the innovation;
2. perceived compatibility of the innovation;
3. perceived trialability of the innovation;
4. perceived observability of the innovation;
5. perceived complexity of the innovation.

Alternative Hypothesis 1. Mean scores of teachers at advanced stages of adoption of the 1971 Alberta social studies curriculum are significantly lower than mean scores of teachers at preliminary stages of adoption of the curriculum on each of the following variables:

1. perceived relative advantage of the innovation;
2. perceived compatibility of the innovation;
3. perceived trialability of the innovation;
4. perceived observability of the innovation;
5. perceived complexity of the innovation.

Hypothesis 2. Teachers who perceive that they have received more assistance and encouragement from

1. the principal (or vice-principal)
 2. supervisory personnel (e.g. superintendent, supervisor, or curricular associate)
 3. other teachers
- tend to adopt innovations more quickly.

Null Hypothesis 2. There is no significant difference between mean scores of teachers at different stages of adoption of the 1971 Alberta social studies curriculum on each of the following variables:

1. perceived assistance and/or encouragement received from the principal (or vice-principal);
2. perceived assistance and/or encouragement received from supervisory personnel (e.g. superintendent, supervisor or curricular associate);
3. perceived assistance and/or encouragement received from other teachers.

Alternative Hypothesis 2. Mean scores of teachers at advanced stages of adoption of the 1971 Alberta social studies curriculum are significantly higher than mean scores of teachers at preliminary stages of adoption of the curriculum on each of the following variables:

1. perceived amount of assistance and/or encouragement received from principal (or vice-principal);
2. perceived assistance and/or encouragement received from supervisory personnel (e.g. superintendent, supervisor, or curricular associate);
3. perceived assistance and/or encouragement received from other teachers.

Hypothesis 3. Teachers who perceive that they have received more assistance and encouragement from in-service activities tend to adopt innovations more quickly.

Null Hypothesis 3. There is no significant difference between the mean scores of teachers at different stages of adoption of the 1971 Alberta social studies curriculum on the variable of perceived amount of assistance and/or encouragement received from in-service activities.

Alternative Hypothesis 3. Mean scores of teachers at advanced stages of adoption of the 1971 Alberta social studies curriculum are significantly higher than mean scores of teachers at preliminary stages of adoption of the innovation on the variable of assistance and/or encouragement received from in-service activities.

Hypothesis 4. There is no difference in rate of adoption of educational innovations among teachers with differing amounts of teaching experience.

Null Hypothesis 4. There is no significant difference between the mean rate of adoption indices of elementary social studies teachers according to the number of years of teaching experience.

Hypothesis 5. Teachers who have more years of professional training tend to adopt innovations more quickly.

Null Hypothesis 5. There is no significant difference between the mean rate of adoption indices of teachers of the 1971 Alberta social studies curriculum according to number of years of professional training.

Alternative Hypothesis 5. Teachers of elementary social studies who have more years of professional training have a significantly higher mean rate of adoption index than teachers who have fewer years of professional training.

However, this research project is to a large extent exploratory. For example, since the reactions of elementary teachers to the new Alberta social studies curriculum have not previously been investigated in depth, the extent to which the new curriculum has been adopted by

teachers with different professional backgrounds is as yet largely a matter of conjecture. Similarly, the nature of teachers' perceptions of the characteristics of the new curriculum, with its value-orientation, its flexibility, and its largely unstructured scope and sequence remains a vital but as yet unanswered question. The questions that follow reflect the exploratory nature of aspects of this research project.

Question 1.

To what extent had the 1971 Alberta social studies curriculum been adopted in May, 1972?

Question 2.

How are the attributes of the new curriculum perceived by teachers at different stages of the adoption process?

Question 3.

How are the attributes of the new curriculum perceived by teachers at different grade levels in the elementary school?

Question 4.

Does rate of adoption of the 1971 Alberta social studies curriculum vary with elementary grade level taught?

Question 5.

Is there any difference in rate of adoption of the new social studies curriculum for teachers who do have/do not have a social studies background?

Question 6.

Is there any difference in rate of adoption of the new curriculum for teachers who do have/do not have University courses in the new social studies?

Question 7

Which of the attributes of an innovation as perceived by classroom teachers are most important in distinguishing between the stages of the process of adoption of the 1971 Alberta social studies curriculum?

Question 8

Which of the following means of assistance as perceived by teachers are most important in distinguishing between the various stages of the process of adoption of the 1971 Alberta social studies curriculum:

- (a) assistance received from the principal (or vice-principal)?
- (b) assistance received from supervisory personnel (superintendent, supervisor, or curricular associate)?
- (c) assistance received from other teachers?
- (d) assistance received from in-service?

Question 9

Which of the following types of in-service are most preferred by teachers as means of becoming familiar with and implementing the 1971 Alberta social studies curriculum:

- (a) membership on an active unit planning committee?
- (b) workshops and seminars operated by visiting personnel (e.g. University or Department of Education)?
- (c) workshops and seminars operated by local personnel (Local supervisor, associates or colleagues)?
- (d) conference on the "new" social studies with expert speakers etc. (e.g. Banff Social Studies Conference)?
- (e) university courses in the "new" social studies?
- (f) availability of current books and journals on the "new" social studies?
- (g) observation of lessons demonstrating the strategies of the "new" curriculum?
- (h) release time for individual study of the "new" curriculum?
- (i) availability of model units prepared specifically for the new approach?

III. Summary of Chapter II

In the first section of this chapter, literature pertinent to aspects of the adoption of educational innovations was reviewed to bring into clear focus the problems outlined in Chapter 1 of

the report. Concurrently, hypotheses and research questions relating to the adoption of the 1971 Alberta social studies curriculum were established in accordance with the nature of the findings of past research and the opinions of authoritative personnel.

Initially, the adoption process, particularly as described by Everett Rogers and F. Floyd Shoemaker (1971) was outlined. Specific reference was then made to recent research findings and authoritative judgments relating to the influence of the perceived characteristics of an innovation on the rate of adoption of the innovation. Literature devoted to various change-agent and in-service influences which might be expected to influence teacher acceptance of change was also reviewed, and reference was made to specific personal attributes of teachers which might affect behavior in the adoption process. Finally, the development and rationale of the 1971 Alberta social studies curriculum were outlined, and recent statements about the reception accorded the new curriculum by classroom teachers were presented.

In the second section of the chapter, the hypotheses and research questions to be investigated were stated in the format believed to be most appropriate to the research data and the statistical procedures available.

CHAPTER III

THE DESIGN AND METHODOLOGY OF THE RESEARCH

This chapter includes a description of how the sample for the study was determined, the methodologies by which the research data were collected, and the procedures employed to ensure that the research testing instrument was characterized by a degree of known validity. Subsequent to, and in light of, these descriptions, the limitations that are perceived to characterize the research design and methodologies of the study are delineated. The chapter is concluded with an account of the statistical procedures utilized to test the hypotheses and research questions that were formulated in Chapter II.

I. The Determination of the Sample

School systems from which the sample was drawn were those jurisdictions located either in the city of Edmonton or within thirty miles of the city. While it cannot be claimed that the sample is necessarily representative of all the elementary teachers of Alberta, it is as comprehensive in scope as restrictions to the researcher's time and budget would permit. Numbers of teachers and schools per school system were ascribed on the basis of system size as outlined in Table 1. As can be seen, it was originally intended that the sample for the study would comprise 370 teachers from 43 schools in nine school systems. But, since one selected

system contained only two elementary schools, and the principals of four schools did not agree to participate in the study, the sample to be researched was reduced to 345 teachers from 38 schools in nine school systems of Alberta. A total of 322 teachers subsequently participated in the study, but five sets of data had to be discounted because respondents had not followed instructions with sufficient care, leaving a final sample that comprised 317 teachers.

Table 1

Determination of the Research Sample

Sizes of School Systems in Sample Region	System Frequency	Teachers per System Allocated to Research Sample (and Total Teachers)	Schools per System Allocated to Research Sample (and Total Schools)
More than 1000 elementary teachers	1	100 (100)	10 (10)
250-1000 elementary teachers	1	50 (50)	6 (6)
100-250 elementary teachers	3	40 (120)	5 (15)
Less than 100 elementary teachers	4	25 (100)	3 (12)
Total	9	(370)	(43)

II. Procedures Involved in Collecting the Research Data

In mid-April, superintendents of school systems in which it was hoped to conduct the research were contacted by letter (See Appendix A for a copy of the letter to superintendents). The nature of the project was outlined, and permission to contact the principals of elementary schools in each jurisdiction was sought. Several days later, each superintendent was contacted by telephone, and a response (in each case, affirmative) was obtained to the preceding written request. At this time, a list of schools and school principals was obtained from each superintendent.

Schools from each jurisdiction were then selected for participation in the study through the use of a random sampling table and respective principals were forwarded a letter (Appendix B) in which co-operation in the study was solicited. Subsequently, a letter of introduction (Appendix C) which explained the nature and significance of the research project was forwarded to each social studies teacher via co-operating school principals. Then, as pre-arranged with principals, the researcher called at each of the schools participating in the study, and spoke with each social studies teacher, usually at the teacher's classroom. The researcher introduced himself, reiterated the nature of the project, and answered pertinent questions. Teachers were requested to complete the opinionnaire by a specified date, and to leave it with the school secretary for collection by the researcher.

Of the 345 opinionnaires distributed, 91.9% were completed

satisfactorily and returned to the researcher. Several reasons for this high response rate appear likely. Firstly, it is possible that at the time of its execution the research project involved an area of particular concern and interest to teachers of elementary social studies. Secondly, school secretaries rendered valuable assistance, in some cases by sending notices of reminder to teachers the day before completed questionnaires were to be handed in. Finally, school principals in all instances permitted the researcher to distribute opinionnaires after having established personal contact with subjects.

It is the opinion of the researcher that the final factor figured most prominently in the attainment of a better than 90% return of distributed testing instruments.

Finally, it is felt that the decision to restrict the study to a relatively small sample in only one geographical region of the province so that steps might be taken to encourage a high degree of teacher participation was justified by the nature of the response rate that was subsequently attained.

III. The Research Instrument—Format, Development, and Validation

The Format of the Instrument

An instrument designed to obtain information to test the hypotheses and research questions established in Chapter II was devised in the form of an opinionnaire. A complete copy of the opinionnaire is contained in Appendix D.

On the introductory page of the opinionnaire, the purpose of the research was stated briefly. Then, respondents were asked to categorize themselves according to whether they were 1. not familiar with the new Alberta social studies curriculum, or 2. familiar with the new curriculum, but not attempting to implement it, or 3. familiar with the new curriculum and attempting to implement it.

Page two of the opinionnaire comprised twelve items devoted to a determination of the extent to which, at the time of the research, adoption of specific aspects of the innovation had occurred. On page three, seven items appropriate to the complexity of the innovation were listed, followed on the same page by eight items relating to the relative advantage of the new curriculum.

Page four comprised ten items pertaining to the compatibility of the new curriculum, and two items pertaining to each of the characteristics of trialability and observability. On the final page, teachers were asked to indicate the amount of assistance and encouragement they had received to implement the new curriculum. In this section respondents were required to circle the most appropriate "x" on a 5-point continuum to indicate the amount of assistance and encouragement obtained from each of several influential personnel. Numerical indices for each teacher were acquired by attributing scores of one through five to the points on each continuum. Also on the fifth page of the opinionnaire, in-service preferences of teachers were determined by having respondents place check marks against the

four (of nine) items which they felt would best assist them to implement the new social studies curriculum. Items designed to obtain pertinent personal information about teachers comprised the final section of the opinionnaire.

The Development of the Instrument

Criteria for Rate of Adoption

Items for the Innovation Adoption Inventory (section A of the opinionnaire) were derived according to the extent to which they were perceived to reflect the major distinguishing features of the 1971 Alberta social studies curriculum.

The preface to the elementary social studies handbook, Experiences in Decision Making, contains the statement that "A concentrated concern with 'what ought to be' gives rise to what is probably the major distinguishing characteristic of the new social studies—its value-orientation." (Department of Education, 1971, p.5) The significance of the value-orientation of the new curriculum was designed into six items of Section A of the opinionnaire. Item 1 focused upon the extent to which social studies units and lessons were planned around "value issues," and item 3 incorporated the high priority attributed by the new curriculum to Rath's valuing process. (Department of Education, 1971, p.9) Items 7 and 11 were intended to ascertain the extent to which basic valuing techniques and strategies were utilized in social studies lessons, while item 10 recognized the importance ascribed by the new

curriculum to the writing of specific value objectives in the planning of units.

"A second characteristic of the new social studies is flexibility. The curriculum allows for decisions to be made by those who will be affected by them." (Department of Education, 1971, p.5) The "flexibility" of the new curriculum was focused upon directly in item 5 (the extent to which the "one-third time" is planned jointly with students). Indirectly, items 4 and 8 recognized the flexibility of the new curriculum by reflecting the assumption that decision-making is facilitated by encouraging students to confront real life problems and to examine areas involving peer relationships, family matters, religion, morality, etc. (Department of Education, 1971, p.11)

The philosophy and course outline of the new curriculum are contained in an elementary social studies handbook entitled Experiences in Decision Making. (Department of Education, 1971) The extent to which teachers adhered to the contents of the handbook in developing social studies units and lessons was the theme of the second item of the Innovation Adoption Inventory.

The ninth item attended to the importance attached by the new Alberta social studies to inquiry techniques. Simon's problem-solving model is described in the teachers' handbook (p.12) and various other techniques pertaining to particular steps of inquiry models are outlined for teachers' reference or adaptation.

At the suggestion of a member of the Department of Education

planning committee for the new curriculum an item was also included in Section A of the research instrument pertaining to the extent to which teachers made allowance for their students to work alone or in small groups (item 6). However, this item, and the last in the section, in which each respondent was requested to determine his rate of adoption index on the basis of preceding responses, were discounted for purposes of determination of rate of adoption indices. Reasons for the exclusion of these items are outlined later in this chapter.

Rating of responses to the items in the Innovation Adoption Inventory was done on a 5-point scale wherein a rating of one meant "no" emphasis was being placed on a component of the innovation and a rating of five meant "great" emphasis was being placed on that component. The mean score of responses gave the Innovation Adoption Index of the respondent.

The Determination of Items Pertaining to the Characteristics of the Innovation

Items pertaining to each of Rogers and Shoemaker's five characteristics of an innovation were selected according to the following rationale.

1. Complexity (Section B). Items 1, 2, 4, and 6 reflected the relative difficulty of understanding salient features of the 1971 Alberta social studies curriculum—the objectives of the new program, the role of the teacher of the new social studies, the

contents of the teachers' handbook, and the rationale behind the value philosophy. Items 3, 5, and 7 reflected the relative difficulty of applying essential aspects of the new program—developing units and lessons, using sample units, and applying valuing strategies.

2. Relative Advantage (Section C). Items 1 through 5 reflected the relative advantage to students of the new curriculum as compared to its predecessor in terms of interest, development of knowledge, skills, and attitudes, and promotion of responsible decision-making powers. Items 6, 7, and 8 reflected the relative advantage to teachers of the new program in terms of preparatory work, evaluation of students, and enjoyment from teaching.

3. Compatibility (Section D). Items 1 through 6 were intended to gauge the extent to which the philosophy of the 1971 Alberta social studies curriculum was compatible with the beliefs and values of teachers—that is, did teachers agree that schools should be involved in values-education? that values-education should be deliberately planned? that it will result in the more responsible use by students of personal freedom? that students should learn how to choose for themselves those values they will hold? that students are capable of "discovering" basic human values for themselves? that the discussion of personal values should be encouraged in class?

The intent of items 7 to 10 was to determine whether the rationale of the new curriculum was perceived as being compatible

with socio-cultural norms—that is, did teachers perceive that our society wants schools to be involved in values-education? that society wants children to learn processes of acquiring their own values? to become actively involved in the examination and resolution of societal problems and value issues pertaining to family matters, work, religion, politics, etc.?

4. Trialability (Section E). Items 11 and 12 on page four were intended to determine the extent to which teachers agreed that the philosophy of the new curriculum can be applied to the subject matter of the old, and the extent to which the innovation can be tried out, at first, on a limited basis.

5. Observability (Section E). In items 13 and 14 on page 4 the intent was to gauge teachers' perceptions of whether the results of the new curriculum can be easily described to, and discussed with, others.

Pilot Studies

Several drafts of the opinionnaire were developed and submitted for trial testing to various groups of teachers before the final format was arrived at. Interviews were conducted with a total of twenty respondents at various stages of the development of the instrument. After each set of interviews, alterations were made to the contents of the opinionnaire to remove ambiguities or difficulties.

Validity Studies

A testing instrument may be said to be valid if it measures

what it is intended to measure. There are several kinds of validity, two of which are felt to have important implications for the present study.

Content Validity

Content validity refers to the degree to which an instrument samples a given situation or variable. The chairman and two other members of the provincial Department of Education Elementary Social Studies Curriculum Committee which had been responsible for developing the new curriculum were contacted and were asked to comment on the content validity of sections A and D of the opinionnaire. Several adjustments were subsequently made, and all agreed that the final draft of Section A presented to them was in fact an accurate representation of the distinguishing features of the new curriculum. Similarly, after suggested alterations had been completed, the first six items pertaining to the characteristic of compatibility (Section D) were perceived to truly represent the philosophy of the new curriculum and the intentions of members of the curriculum planning committee.

Two instructors from the Department of Educational Administration, University of Alberta, who were familiar with the publications and research of Everett Rogers, were contacted and were asked to comment on the content validity of those sections of the testing instrument dealing with Rogers and Shoemaker's five characteristics of an innovation. Several items were subsequently omitted from the compatibility section in accordance with the suggestions

of these personnel.

On the basis of the above evidence, the final draft of the opinionnaire was presumed to have a high degree of content validity, both in terms of Rogers and Shoemaker's characteristics of an innovation, and as a means of measuring indices of rate of adoption of the new curriculum.

Concurrent Validity

The concept of concurrent validity has been described by Freeman as indicating the process of validating a new test by correlating it, or otherwise comparing it for agreement, with some present source of information. The source of information might have been obtained shortly before or shortly after the new test was given. (Freeman, 1962, p.96) Anastasi (1961), in a description of the same concept, emphasizes the necessity of employing techniques which rate behavior in situations in which the particular trait in question is manifested. (Anastasi, 1961, pp.144-145) Anastasi suggests that, where possible, ratings on behavior in such situations should be obtained from personnel who are independent of the research project. Because this study relied for calculations of rate of adoption indices upon teachers' perceptions of their own classroom behavior, it was felt necessary to obtain an indication of the extent to which perceived rate of adoption, as measured by responses to items in the Innovation Adoption Inventory, concurred with actual rate of adoption of the new

curriculum.

Three alternative means of determining rate of adoption indices were selected for investigation in a number of classrooms. These were:

1. The researcher's perception of rate of adoption, based upon interviews with teachers, observations of teachers' preparation for lessons and units, and where possible, observations of actual social studies lessons.
2. The researcher's perception of rate of adoption, based upon interviews with students, and observations of students' work.
3. Principals' perceptions of rate of adoption, based upon principals' familiarity with teachers' behavior in social studies lessons and units.

Thirteen teachers were pre-selected from four schools in one of the large systems participating in the research project. The four schools were selected on the recommendation of a supervisor of instruction who felt that the principals of the schools in question were familiar with the new curriculum, and would also likely be aware of the behavior of their teachers in social studies lessons and units. Subsequently, teachers were selected on the recommendations of the principals, according to the extent to which they would be likely to co-operate with the researcher.

The thirteen teachers were introduced to the research in keeping with the data collection procedures delineated in the second section of this chapter. When the opinionnaires were collected,

arrangements were made for teacher interviews. At a later date, arrangements were made for the student interviews.

A. Teacher Interviews: The teacher interviews were utilized for two interrelated purposes: 1. to determine whether items in the Innovation Adoption Inventory accurately gauged the extent to which an individual teacher had adopted the new curriculum; and 2. to determine whether teachers at different stages of adoption were easily distinguished from each other by Section A items.

Each teacher was questioned, in a structured interview situation, as to the basis of his responses to Section A items. Probing questions were employed to obtain specific examples of actual classroom practices, and references to daily preparation, unit plans, and students' work were sought. The structured interview schedule is contained in Appendix E. After the interviewing was completed, responses of teachers to each item were compared to determine the extent to which individual items had successfully differentiated teachers at various stages of adoption of the new social studies program.

Extracts taken from the researcher's written observations of teacher interviews are described below to illustrate how Section A items appeared to differentiate successfully between teachers at different stages of adoption of the new curriculum. Six examples are given. Most demonstrate the differences between a "slight" degree of emphasis on an item, as opposed to a "considerable" degree of emphasis on the item. In all cases, ratings are those given by

teachers in their original completion of the opinionnaire.

Item Organizing social studies lessons around clearly stated "value"
1 issues" which require students to make value judgments.

Considerable Emphasis-Teacher A

Slight Emphasis-Teacher B

Most Recent Topic: Should handicapped people be permitted to participate in society?

The History of the Aztecs

Value(s) Emphasized: Empathy

Appreciation of different cultures, religions, and ways of life.

Value Judgments Sought: To what extent should we make sacrifices for the sake of the handicapped?

-

Item Using units developed in accordance with the course outline
2 (or using the sample units) in Experiences in Decision Making.

Considerable Emphasis-Teacher J

Slight Emphasis-Teacher H

Use of Sample Units: Worked through "Boomstown" unit.

A few activities from "Supermarket" unit were tried out.

Ideas Tried from Course Outline
Much use made of a unit building "model" supplied by a curricular associate.

Tried Simon's problem-solving model. (One unit only. "It didn't work.")

Item Encouraging children to "process values" according to the valuing
3 process of choosing, prizing, and acting.

Great Emphasis-Teacher M

Slight Emphasis-Teacher H

Knowledge of Raths' Process
Sophisticated.

Some.

Focus on the Valuing Process
Sets of slides pertinent to each step of Raths' process were prepared by the teacher for classroom use. (Transfer of learning from social studies lessons to students' personal behavior was emphasized by this teacher.)

Has not attempted to deal with specific steps of the valuing process. Recognizes Raths' strategy as worthwhile general objective that is "not meant to be taken seriously as a specific model for actual use."

- Item 7 Using particular techniques to have students examine their own values for clarity, consistency, and defensibility.

Great Emphasis-Teacher L

Techniques Tried: Much role-playing, contrived incidents, use of values inventory. (Teacher L's class was observed in a role-playing situation to culminate the unit "Was slavery a good thing in Roman society?" Involvement in this activity by both role-players and audience appeared to be very high.)

Some Emphasis-Teacher K

A little role-playing. Teacher K felt that most of the "new" techniques are impractical, because "students don't take them seriously," but demonstrated for the researcher's benefit how value-clarification is nevertheless sought through group discussions.

- Item 8 Encouraging students to examine contemporary problems and controversial issues.

Considerable Emphasis-Teacher K

Types of Problems Examined: Those which either interest students or cause them personal concern. Students' notebooks demonstrated that the Amchitka incident had been examined from several viewpoints. Student-made posters of the Nixon visit to China appeared to substantiate the teacher's claims regarding emphasis on this item.

No Emphasis-Teacher I

Teacher I had written on the opinionnaire: "In the lower grades, the teacher sometimes has an uneasy feeling regarding the advisability of exposing very young children to problems e.g. poverty, over which they have no control.... They are care-free for so short a time." Teacher I claimed also that the school had "no business" becoming involved in value-conflicts regarding children's home lives.

Item 10 Writing specific behavioral objectives for social studies lessons and units.

Considerable Emphasis-Teacher D

Some Emphasis-Teacher E

Teacher D's preparation of social studies lessons and units illustrated that she had written value, knowledge, and skill objectives in behavioral terms. She stated, however, that she sometimes found it necessary to change the value objectives during the course of the unit.

Teacher E tried to teach two units by stating clear value objectives in behavioral terms at the outset. But she had experienced great difficulty in maintaining focus on the value objectives, and felt that, since observable changes were unlikely to occur in such a short period of time, such objectives should certainly be borne in mind, but not written for each unit.

As a result of the teacher interviews one important alteration was made to the Section A format. Item 6 had originally been included on the suggestion of a member of the Elementary Social Studies Curriculum Committee. However, the teacher interviews made clear that teachers themselves did not associate this methodology with the new social studies any more than with other subject areas. Moreover, teachers' responses to this item appeared to be influenced more by their perceptions of the nature of classes they taught than by perceptions of the requirements of the new curriculum. Thus, item 6 was excluded from Section A for the purpose of calculating rate of adoption indices. Also, when item 6 was excluded, it was found that the response to item 12 in which teachers were asked to evaluate their own rate of adoption indices on the basis of preceding responses no longer necessarily represented an approximate mean of

the preceding items. Therefore item 12 was also excluded for the purpose of determining rate of adoption indices.

As a result of the interviews, it was concluded that three of thirteen interviewees had categorized themselves inappropriately. Two (Teacher C and Teacher I) were very experienced, conscientious teachers who, it was concluded from the interviews, had underestimated the extent to which they had adopted the new program. Both teachers claimed to be quite favourably disposed towards the new curriculum; but both perceived that there is "nothing really 'new' about the 'new' social studies," and claimed to have "always taught that way" to some extent. One teacher stated that there must be some unique features of the 1971 curriculum which had so far escaped her notice. The researcher concluded that it was because both believed that there was nothing really "new" about the new curriculum that they had ranked themselves lower on the adoption scale than should have been the case.

In a third case, it was concluded that the interviewee (Teacher A) had overstated the extent to which she had adopted the new curriculum. Teacher A, a social studies major with University courses in the new social studies, was in her first year of teaching experience. She claimed that because she was unaware of the nature of the previous Alberta curriculum she "must" be teaching most aspects of the new curriculum "quite fully." However, the researcher concluded from the interview with Teacher A that she had misinterpreted several vital components of the new curriculum, and that in spite of her good intentions, was not implementing the unique

features of the new program to the extent that she perceived.

It was decided subsequent to the teacher interviews that Section A of the instrument was not sufficiently sensitive as to appraise with complete accuracy rate of adoption indices of teachers who were characterized by either of the attributes described above. However, it is felt that individual differences among teachers are such that it is doubtful if these deficiencies could have been overcome by utilizing any alternative method of measuring rate of adoption.

B. Student Interviews: Interviews were conducted with pairs of students from each of the eight grades 4, 5 and 6 validation study classrooms where teachers had indicated they were attempting to implement the new curriculum. Observations of students' work and descriptions by students of their social studies lessons and units seemed to substantiate that the items in the Innovation Adoption Inventory comprised an appropriate basis for the determination of rate of adoption indices for most teachers. The student interview schedule was largely unstructured, and is contained in Appendix F. Several examples might be cited to illustrate the ways in which student descriptions suggested that their teachers' perceptions of degree of implementation had been accurate.

Item 1: "...organizing social studies lessons around clearly stated value issues which require students to make value judgments."

Teacher L had indicated that he placed "great" emphasis upon Item 1. Students of Teacher L were able to describe how they had treated their most recent topic, Freedom: Its Rights and Responsibilities. They had examined the value of "freedom" in early Roman and Greek societies, as well as in our own, had tried to put themselves in the position of various Roman and Greek citizens, and had concluded that "the world hasn't changed much," because, for example, the slavery of Roman times was no less humane than the "white slavery" of some North American cities today. (This was a reference to a current news item.) In contrast, students of Teacher B, who claimed to place "slight" emphasis on this item, claimed to have learned a lot in a recent unit entitled History of the Aztecs about how the Aztecs lived, but were not able to identify any specific decision-making situations they had been involved in.

Item 5: "...planning the use of the "one-third time" jointly with students."

Students from the classroom of Teacher K ("great" emphasis on this item) described how, for the last month of each term, they had chosen topics for individual and small-group study, had their topics approved by the teacher, and done research culminating in the presentation of reports and activities to the class. Reference to "scrapbooks" verified that many topics had been potential value issues (e.g. "Is playing in the N.H.L. a worthwhile career for a boy to plan on?" "Should we have more moon trips?") Students of

Teacher E, on the other hand, were not familiar with the term "one-third time" and were unable to identify projects or units that they had planned jointly with their teachers. Teacher E had claimed to place "no" emphasis on this item.

Item 11: "...using specific questioning strategies to encourage children to examine their own attitudes, beliefs, and values."

Students of Teacher M ("great emphasis") claimed that their teacher asked a great number of "Why?" questions. They felt that this was because their teacher wanted them to be aware of others' points of view, and wanted them to sort out any flaws in their own thinking. These students felt that all steps of the inquiry-oriented processes that characterized their social studies lessons were based upon questioning, by both the teacher and themselves. Students of Teacher K ("some" emphasis) were also able to identify specific questions (e.g. in a recent unit on National Parks, "What would happen if we ran out of trees?" "What if there were no forests left?") which suggested, as the students themselves claimed, that the teacher encouraged students to examine their own thoughts and ideas. But the questioning strategies of this teacher, as described by students, were not so extensive as those of Teacher M.

The data from student interviews in all cases was in agreement with the data that the researcher had obtained through teacher interviews. That is, seven of the eight pairs of students described activities, planning, etc. which substantiated the claims made by

their teachers in response to Section A items. The students of Teacher C, however, described activities, planning etc. which suggested, as the researcher suspected, that Teacher C had underestimated the extent to which she was implementing the new curriculum.

C. Principals' Ratings: Principals' perceptions of the extent to which classroom teachers had adopted the new curriculum contributed little towards establishing that the Innovation Adoption Inventory was possessed of a high degree of validity. For a copy of the form completed by principals, see Appendix G. In only three cases did principals' perceptions agree with those of teachers, and in only five cases did principals' perceptions agree with those of the researcher subsequent to teacher and student interviews. The nature of differences between principals' perceptions and the researcher's perceptions was as follows.

Teachers H, E, and K, located in the same school, were rated as having adopted "slightly", "some," and "quite fully" by the researcher, and as "some", "quite fully," and "fully" respectively by the principal. That is, the rank order of rate of adoption as perceived by the researcher was preserved in the ratings of the principal, even though actual ratings did not correspond.

Teacher I, who rated herself as implementing "some" was perceived by the researcher as having underestimated the extent to which she had adopted the new curriculum. She was rated by the principal as adopting "fully." But she had rejected several

important aspects of the new program as unsuitable for her class (Grade 2) and hence it was not conceded that the principal had made a completely accurate appraisal.

Principals' ratings of the four remaining teachers bore no resemblance to the ratings given by either the researcher or the teachers themselves. Further investigation revealed the following possible explanations.

Teacher B had taught the new social studies at the high school level during the previous school year, but told the researcher that he had experienced great difficulty adapting to the Grade 6 curriculum. Apparently unbeknown to the principal, he had gradually abandoned most aspects of the new approach during the course of the year.

Teacher F had taught the new social studies earlier in the year, and expressed her intention of resuming the new program in September, 1972. But at the time of the research she had abandoned the social studies entirely so as to place additional emphasis on the "more basic subjects" with her class of slow learners. The principal, apparently, was unaware of this.

Teacher D was teaching her first unit in the new social studies at the time of the research and rated herself as implementing "slightly." The principal (who rated her as implementing "not at all") apparently did not know that this teacher had begun to work on the new curriculum.

Teacher G had been employed in his school for only two months,

having come from another province where he had recently obtained an M.A. in social sciences. The principal told the researcher that, on the basis of the teacher's background, he had expected Teacher G to be implementing the new social studies "quite fully." In reality, Teacher G had not read the teachers' handbook, Experiences in Decision Making, and rated himself a Non-Familiar. The fact that the discrepancies between teachers' (or researcher's) and principals' perceptions of rate of adoption can be largely explained on the basis of inaccurate judgments by principals would seem to suggest that, for the purposes of deciding the validity of Section A of the instrument used in this study, principals' perceptions should be given little consideration.

A summary of the various rate of adoption indices ascribed to each of the thirteen teachers involved in the concurrent validity study is given in Table II.

Conclusions of the Validity Investigations

As a result of the pilot studies and content and concurrent validation procedures conducted, Section A of the research instrument was perceived as a relatively efficient means of measuring rate of adoption of the innovation in question. However, it was concluded that certain individual differences among teachers, which it was not possible to control, were of sufficient magnitude as to suggest that a number of adopting teachers might rate themselves inaccurately

Table II

A Summary of the Various Rate of Adoption Indices Ascribed to Teachers in the Validation of the Testing Instrument

Teacher	Teacher's Perception	Researcher's (a) Teacher Interviews	Perceptions from (B) Student Interviews	Principal's Perception
A	Quite fully	Some	-	Some
B	Slightly	Slightly	Slightly	Quite fully
C	Some	Quite fully	Quite fully	Quite fully
D	Slightly	Slightly	Slightly	Not at all
E	Some	Some	Some	Quite fully
F	Not at all	Not at all	-	Slightly
G	Not at all	Not at all	-	Quite fully
H	Slightly	Slightly	-	Some
I	Some	Quite fully	-	Fully
J	Quite fully	Quite fully	Quite fully	Quite fully
K	Quite fully	Quite fully	Quite fully	Fully
L	Quite fully	Quite fully	Quite fully	Quite fully
M	Fully	Fully	Fully	Fully

for placement on the Innovation Adoption Scale. This inexactitude, which did not in any of the three cases described above exceed one point on the 5-point scale, is seen as a limitation of the study.

Sections of the instrument dealing with Rogers' five character-

istics of an innovation were also developed so as to ensure a high degree of content validity. Pilot studies were conducted in an attempt to eliminate any difficulties and ambiguities. After subsequent modifications had been made the instrument was perceived as capable of measuring with accuracy Rogers' characteristics of an innovation as applied to the 1971 Alberta Social Studies Curriculum for Elementary Schools.

Test-Retest Reliability of the Research Instrument

Ten principals were each contacted by mail and were requested to select three teachers to complete the opinionnaire for a second time. For a copy of the letter, see Appendix H. A test-retest coefficient for each section of the instrument was subsequently derived from the responses of twenty-four teachers. The interval between first and second testings varied from ten to twenty days.

The Pearson Product-Moment Coefficient of Correlation was used to calculate test-retest reliability with the following results:

Table III

Test-Retest Reliability of the Research Instrument

Section of Instrument	Reliability Coefficient
Section A (Innovation Adoption Inventory)	0.87
Section B (Complexity)	0.87
Section C (Relative Advantage)	0.78
Section D (Compatibility)	0.63
Section E (Trialability)	0.45
(Observability)	0.93

The reliability coefficients listed above do not reflect upon the internal reliabilities of sections of the research instrument. They suggest only the extent to which mean scores of the various sections of the opinionnaire are stable over a short period of time. Because of the relatively small reliability coefficient on the characteristic of trialability, generalizations made in the following chapters of this report pertaining to trialability will have to be accepted with caution.

IV. Limitations of Research Methodologies Employed

On the basis of the foregoing descriptions, the methodologies that were employed to obtain data for the testing of the hypotheses and research questions are perceived to be characterized by a number of limitations.

1. It is possible that the sample was not a true representation of all elementary social studies teachers in Alberta since it comprised teachers from one geographical location in the province (that is, in or close to the city of Edmonton). Generalizations and conclusions derived from the findings of the research will have to be interpreted in the light of this limitation.

2. In spite of the lengthy piloting procedures employed there are limitations to the sensitivity of section A of the instrument in categorizing teachers according to the extent to which they had at the time of the research adopted the new social studies

curriculum. A number of researchers have drawn attention to the problem involved in obtaining accurate measurements of rate of adoption, and to the necessity of using appropriate methods to assess degree of implementation. Gross et. al. (1971), for example, in a discussion of Rogers' adoption process and related research projects stated that, "The importance of obtaining an accurate measure of the dependent variable in any study cannot be overstressed. Work based on systematic observations of the behavior in question is clearly a necessity." (Gross, et. al., 1971, p.35) While Gross' recommendation could not be applied to this research, because of the size of the sample that it was felt must be utilized the Innovation Adoption Inventory is known to be not completely efficient as a means of measuring rate of adoption. Its deficiencies, although felt to be slight, should be acknowledged in any consideration of the findings of this study.

3. Teacher perceptions on the characteristic of trialability were characterized by relatively low test-retest reliability. Generalizations made regarding perceptions of this characteristic will have to be interpreted accordingly.

4. The limitations of opinionnaire-type studies have been well documented by many authorities. While the chief limitation of most such studies, poor response rate (Helmstadter, 1970, p.71) was overcome in this research, there can be no guarantee that opinionnaires were either honestly or conscientiously completed.

Moreover, while very few teachers indicated that items were either ambiguous or difficult to respond to, it is possible that some items were problematic for some respondents.

VI. Techniques Used in the Analysis of the Research Data

Types of Analyses Used to Test Research Hypotheses and Questions

The hypotheses and most of the research questions were tested on the IBM 360/67 computer using programs of the Division of Educational Research Services of the University of Alberta. One way analysis of variance (ANOV 15) and t test (ANOV 10) were chosen to test all hypotheses and those research questions for which rate of adoption of the innovation was the dependent variable. Stepwise regression analysis (MULRO 6) was performed to determine which of the characteristics of an innovation and which of various change-agent and in-service influences were of most importance in distinguishing the various functions (or stages) of the adoption process. Frequency distributions were utilized in gauging extent of adoption of the new curriculum at the time of the research, and in determining teachers' in-service preferences.

Use Made of Teachers' Comments in the Interpretation of Statistical Results

Teachers were invited to add pertinent remarks to Sections B, C, and D of the opinionnaire. About 30% of teachers accepted the

invitation, some to the extent of several pages of interesting descriptions of personal philosophy and experiences with the new curriculum. Reference is made to some of these personal remarks in the testing of Question 2, which attempts to ascertain the reactions of teachers to the various components of the new curriculum.

VII. Summary

The purpose of the chapter was to describe the elements in the procedures, instruments, sample, and methodologies used to investigate the hypotheses and questions established in Chapter II.

A preliminary sample of 370 teachers was selected from 43 schools in nine school districts. A total of 317 teachers from 38 schools in nine school districts comprised the eventual population for the study. The 317 respondents represented 91.9% of the teachers who were contacted for participation in the research. The testing instrument that was developed to obtain data relevant to the dependent and independent variables was in opinionnaire form. The instrument was piloted, and validated both empirically and by authoritative personnel.

Research data was collected after personal contact was established with each of the teachers selected for participation in the study. Analysis of variance and t test were the statistical procedures chosen to test the research hypotheses and most of the questions established in Chapter II. In addition, stepwise

regression analysis and frequency distributions were selected to test two research questions.

The research design was perceived to have several possible limitations, each of which would have to be taken into consideration in drawing conclusions from the findings of the study.

CHAPTER IV

ANALYSIS OF DATA AND FINDINGS OF THE STUDY

In Chapter II it was hypothesised that rate of adoption of the 1971 Alberta social studies curriculum is associated with (a) teachers' perceptions of the attributes of the innovation, (b) certain personal and situational teacher characteristics, and (c) teachers' perceptions of assistance received from various change-agent personnel, and from in-service activities. In addition, a number of exploratory questions relating to the adoption of the new curriculum were established for investigation.

In this chapter of the research report, the methods of statistical analyses employed to test the hypotheses and research questions are described and the results of the analyses are presented and discussed. As a preliminary step, however, to make the subsequent analytical descriptions more easily comprehensible to the reader, a summary of information about the population involved in the study is presented, and the characteristics of the various adopter categories into which respondents were grouped for purposes of statistical analysis are delineated.

I. Information About the Research Population

The sample for the study comprised 317 teachers from 38 schools located in nine school jurisdictions of Alberta. In Table IV

Table IV
Information About the Respondents
N=317

Classification	Frequency	Percentage Frequency
<u>Grade Taught</u>		
one	46	14.51
two	55	17.35
three	58	18.30
four	60	18.93
five	42	13.25
six	46	14.51
not stated	10	3.15
Total	317	100.00
<u>Amount of Professional Training</u>		
one year	23	7.26
two years	54	17.03
three years	55	17.35
four years	143	45.11
five years	25	7.89
six years	8	2.52
not stated	9	2.84
Total	317	100.00
<u>Amount of Teaching Experience</u>		
0-2 years	56	17.67
3-5 years	62	19.56
6-9 years	49	15.46
10-14 years	57	17.96
15-19 years	29	9.15
20-29 years	36	11.36
30 or more years	12	3.79
not stated	16	5.05
Total	317	100.00
<u>Social Studies Major</u>		
affirmative	70	22.08
negative	239	75.39
not stated	8	2.53
Total	317	100.00
<u>University Courses in the New Social Studies</u>		
affirmative	48	15.14
negative	261	82.34
not stated	8	2.52
Total	317	100.00

information with respect to subjects' teaching level, professional training, teaching experience, social science background, and specialized study in the new social studies curriculum is presented.

II. The Composition of the Adopter Categories

For the purpose of the statistical testing of the hypotheses and research questions, each subject involved in the study was categorized according to his familiarity with, and adoption of, the 1971 Alberta Social Studies Curriculum for Elementary Schools. Four mutually exclusive categories of teachers as described below were determined. Frequency distributions showing membership of the four groups are presented in Table V.

The Non-Familiar Group (N=74 or 23.3% of the sample)

This group comprised teachers who, at the time of the research, claimed to be not familiar with the new social studies curriculum or the teachers' handbook, Experiences in Decision Making. The perceptions, opinions, and characteristics of members of this group were not considered for analyses which involved rate of adoption as the dependent variable, since subjects in the group could not be located at any of the stages of Rogers and Shoemaker's adoption process. The personal characteristics of the Non-Familiar group are outlined in Table VI. The information contained in Table VI denotes that the Non-Familiar group was distinguished by the extent to which its members were teachers of the primary grades.

Table V

Frequency Distributions of the Non-Familiar and Adopter Groups

Classification of Group (abbreviated)	Frequency	Percentage Frequency
<u>Non-Familiars</u>	74	23.34
<u>Non-Adopters</u>		
Tried out, discontinued	20	6.31
Hope to begin in September, 1972	23	7.26
Undecided when to begin	22	6.94
Do not intend to begin	6	1.89
	71	22.40
<u>Partial-Adopters</u>	86	27.13
<u>Full-Adopters</u>	86	27.13
Total	317	100.00

The Non-Adopter Group (N = 71 or 22.4% of the sample)

This group was comprised of those respondents who claimed to be familiar with the new curriculum but to be not implementing it at the time of the research. The composition of the Non-Adopter group is contained in Table V. Members of this group would be located at the "knowledge" stage of the revised (1971) model of Rogers' adoption

Table VI
The Characteristics of the Non-Familiar Group
N = 74

Classification	Frequency	Percentage	Frequency
<u>Grade Taught</u>			
one	21	28.38	
two	19	25.68	
three	14	18.91	
four	7	9.46	
five	5	6.76	
six	5	6.76	
not stated	3	4.05	
Total	74	100.00	
<u>Amount of Professional Training</u>			
one year	6	8.11	
two years	17	22.97	
three years	15	20.27	
four years	31	41.89	
five years	2	2.70	
six years	-	-	
not stated	3	4.06	
Total	74	100.00	
<u>Amount of Teaching Experience</u>			
0-2 years	11	14.86	
3-5 years	13	17.57	
6-10 years	14	18.92	
11-20 years	18	24.32	
20 or more	13	17.57	
not stated	5	6.76	
Total	74	100.00	
<u>Social Studies Major</u>			
affirmative	8	10.81	
negative	63	85.14	
not stated	3	4.05	
Total	74	100.00	
<u>University Courses in the New Social Studies</u>			
affirmative	2	2.71	
negative	69	93.24	
not stated	3	4.05	
Total	74	100.00	

process. However, 28% (or $N = 20$) of the Non-Adopter group comprised teachers who had tried out the new curriculum but discontinued their efforts to teach it. Such instances are appropriately described by Rogers and Shoemaker as "discontinuances." (Rogers & Shoemaker, 1971, p.113) However, Rogers and Shoemaker do not comment upon the circumstances under which subjects who have rejected an innovation might decide to re-adopt it. But in the case of the innovation in question, a number of rejectors stated on their copies of the opinionnaire that they might resume teaching the new social studies at a future date—if, for example, additional materials were made available to them. Hence, it was decided that all respondents who indicated that at the time of the research they were not implementing the new social studies, but were familiar with it, would be included in the Non-Adopter group. Each member of the Non-Adopter group was attributed the rate of adoption index of 1.0. That is, each was judged to be familiar with the distinguishing features of the new curriculum but to be making no attempt to incorporate any of these elements into his teaching of the social studies at the time of the research.

The Partial-Adopter Group ($N = 86$ or 27.1% of the sample)

Members of this group were those respondents whose rate of adoption indices on the Innovation Adoption Scale (Figure II) were located below the fiftieth percentile of indices for all adopters. Partial-Adopters as defined in this study would approximate the

"persuasion" stage of Rogers' revised (1971) adoption process, where "trial" usually occurs. (Rogers & Shoemaker, 1971, p.26)

The Full-Adopter Group (N = 86 or 27.1% of the sample)

Subjects whose rate of adoption indices on the Innovation Adoption Scale were located at or above the fiftieth percentile of indices for all adopters comprised the Full-Adopter group. Members of this group would approximate the "decision" stage of the revised (1971) model of Rogers' adoption process. That is, they had implemented the innovation quite fully, though not necessarily permanently. (Rogers & Shoemaker, 1971, p.26)

A frequency polygon showing placement of all adopters on the Innovation Adoption Scale is given in Figure II.

The decision to differentiate two groups of adopters as described above was made in accordance with Rogers and Shoemakers' description of the adoption ("innovation-decision") process. The fiftieth percentile of the Innovation Adoption Scale was selected as a boundary between groups because it differentiates two groups which correspond almost exactly with groups differentiated by the median on the 5-point Innovation Adoption Scale. This phenomenon is illustrated in Figure II by the normal-type nature of distribution of adopters. Rogers and Shoemaker (1971) have drawn attention to the apparent fact that adoption of an innovation follows a normal, bell-shaped curve and to the consequence that if the cumulative number of adopters is plotted, the result is an S-shaped curve. (p.177) The cumulative

f.

20

15

10

5

1.0

1.5

2.0

2.5

3.0

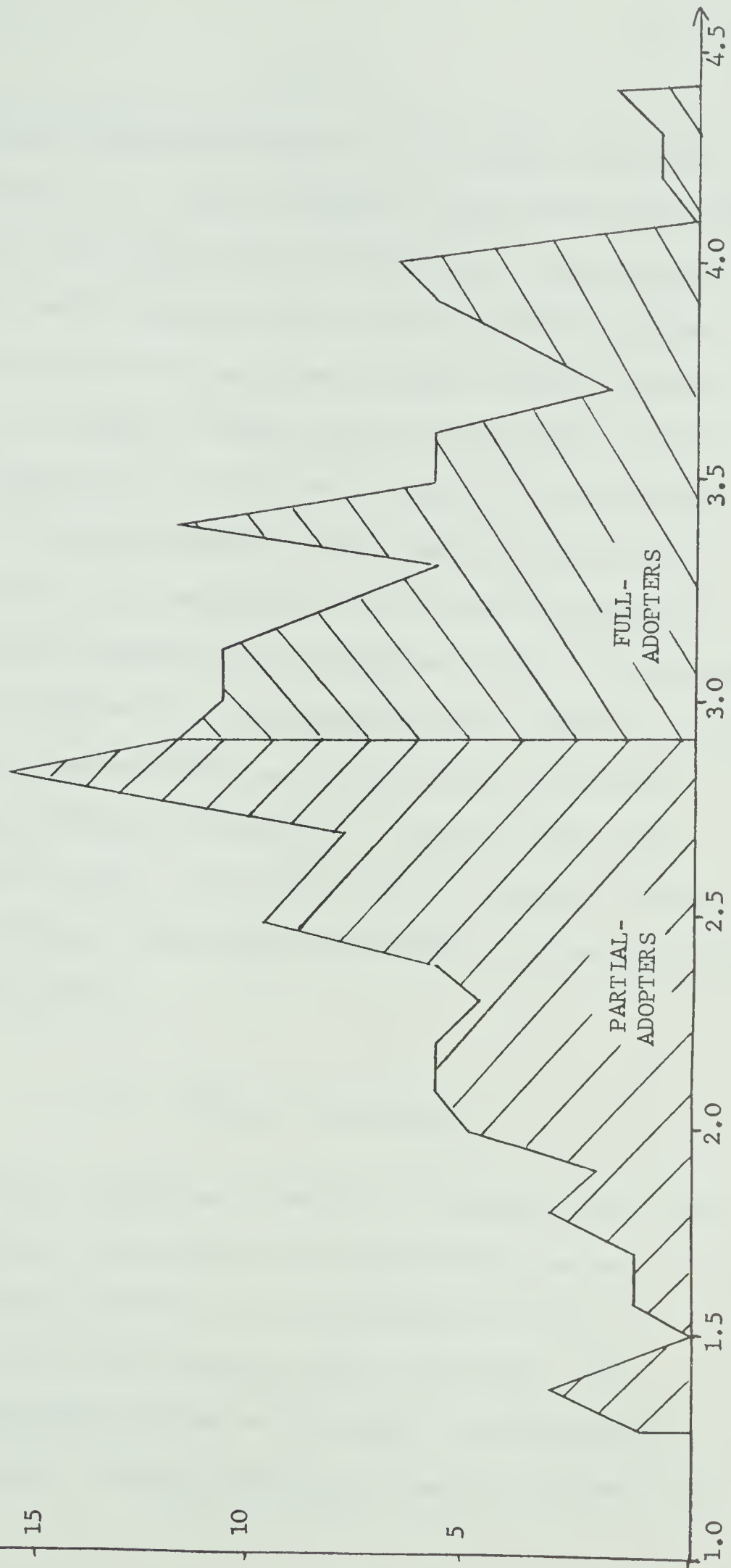
3.5

4.0

4.5

Figure II

Frequency Polygon Showing Location of
Adopters on the Innovation Adoption Scale



Innovation Adoption Scale

curve for adoption of the 1971 Alberta social studies curriculum is plotted in Figure III. The two adopter groups were distinguished from each other at the .001 level of significance on mean scores of responses to each of the ten items of the Innovation Adoption Inventory. (Mean scores of each group on each item are contained in Table VII.) The extent to which the two groups were separated suggests that categorizing of individual teachers for the purpose of a number of statistical analyses should have resulted in the annulment of some of the inadequacies of the Innovation Adoption Inventory that were detected in the validation study. (For example, as was stated in Chapter III, it is possible that a number of teachers who perceived the new curriculum as not being very "new" at all might have been attributed a lower rate of adoption index than should have been the case. Following grouping, a number of these subjects would, however, have gained membership in the category which best distinguished them.)

III. Testing the Hypotheses

The statistical procedures of analysis of variance and t test were used to determine the nature of the relationship between independent variables contained in the hypotheses and rate of adoption of the 1971 Alberta social studies curriculum. The findings of statistical analyses as they apply to each hypothesis are discussed below. The alpha level was set at the .05 level for

Figure III
S-Shaped Cumulative Curve for Adoption of the New Social
Studies Curriculum. (May, 1972)

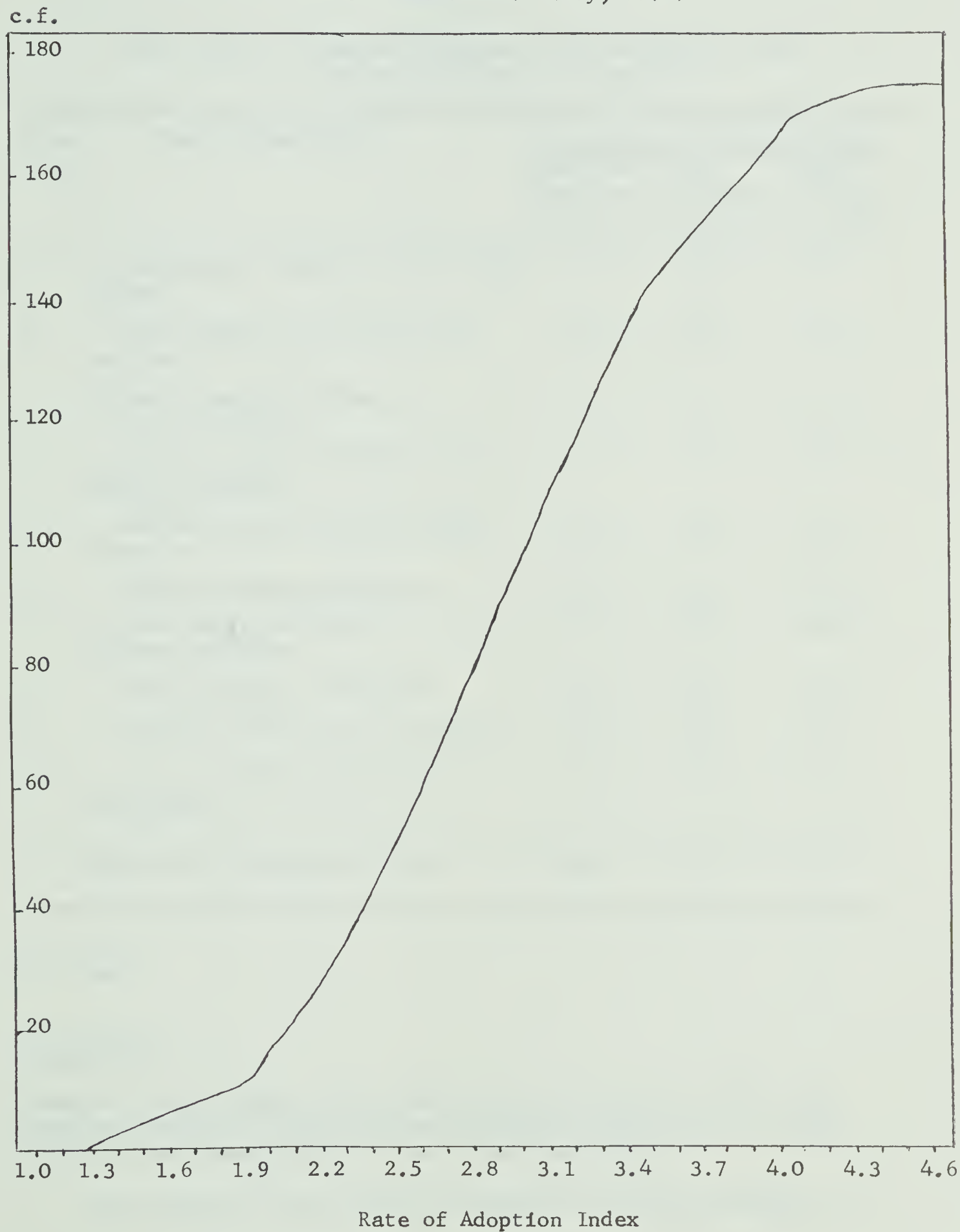


Table VII

Mean Scores of Adopter Groups on Items Included in the
Innovation Adoption Inventory

Item No.	Item (abbreviated)	Mean Score of Adopter Group		
		Partial- Adopters N = 86	Full- Adopters N = 86	Total- Adopters N = 172
1.	...organizing lessons around "value issues"	2.37	3.57	2.97
2.	...using sample units from the handbook	2.66	3.45	3.06
3.	...encouraging children to "process values"	2.37	3.57	2.97
4.	...giving students practice in decision making	2.72	3.72	3.22
5.	...planning one-third time with students	2.08	3.08	2.58
6.	...using valuing techniques	2.15	3.53	2.84
7.	...encouraging students to examine problems	2.55	3.55	3.05
8.	...using inquiry techniques	2.62	3.55	3.08
9.	...writing behavioral objectives	2.05	3.07	2.56
10.	...using specific questioning strategies	2.38	3.53	2.96
Mean Rate of Adoption Index		2.39	3.46	2.93

all tests.

Hypothesis 1.

Teachers tend to adopt more quickly those innovations which they perceive to have a high relative advantage, compatibility, trialability, and communicability, and a low complexity.

The results of the statistical analysis of data pertinent to

Hypothesis 1 are presented in Tables VIII, VIII(A), and VIII(B).

Mean scores of each of the Non-Adopter, Partial-Adopter, and Full-Adopter groups on each characteristic (Table VIII) were tested for significance of differences by one way analysis of variance (Table VIII(A)) and the Scheffé Multiple Comparison of Means (Table VIII(B)). Because of the design of the Likert-type scale for registration of teachers' responses, a small mean score in Table VIII is indicative of high relative advantage, compatibility, trialability, and observability, and low complexity. A large mean score indicates a low relative advantage, compatibility, trialability, and observability, and a high complexity.

On each of the variables of relative advantage, compatibility, observability, and complexity, significant differences between mean scores of Non-Adopters and Full-Adopters, and between Partial-Adopters and Full-Adopters were found to exist when group means on each component were compared by the Scheffé test. On the variable of trialability, differences between no two groups were found to exist at the established criterion of significance. But because the overall F value of 3.40 was significant at the established (.05) probability level, further investigation was carried out. When the Non-Adopter and combined Adopter groups were compared on the variable of trialability by t test the t value of 2.61 was found to be significant at the .05 level (Table IX).

Table VIII

Mean Scores of Non-Adopters, Partial-Adopters, and Full-Adopters on
Perceptions of the Characteristics of the Innovation

Adopter Group	Perceptions of Characteristics							
	Relative Advantage		Compatibility		Triability		Observability	
	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
Non-Adopters (N = 71)	3.24	.74	2.64	.50	2.29	.61	3.71	.74
Partial-Adopters (N = 86)	3.06	.53	2.55	.50	2.08	.59	3.69	.81
Full-Adopters (N = 86)	2.51	.64	2.36	.44	2.07	.55	3.34	.72
Total (N = 243)	2.92	.70	2.51	.49	2.14	.58	3.57	.77
							3.33	.61

Table VIII(A)

Summary of Analysis of Variance on Perceptions of the Characteristics of the Innovation
over Non-Adopters, Partial-Adopters, and Full-Adopters

Characteristic	Sums of Squares		Mean Squares		d.f.		F.	p.
	Between	Within	Between	Within	Between	Within		
Relative Advantage	23.57	97.03	11.78	.40	2	240	29.15	.0000
Compatibility	3.45	55.87	1.73	.23	2	240	7.41	.0008
Trialability	2.29	80.84	1.14	.34	2	240	3.40	.0351
Observability	7.24	138.08	3.62	.58	2	240	6.29	.0022
Complexity	12.32	77.67	6.16	.32	2	240	19.03	.0000

Table VIII(B)

The Scheffé Comparison of Means of Non-Adopters, Partial-Adopters, and Full-Adopters
on Perceptions of the Characteristics of the Innovation

Characteristics of the Innovation	Non-Adopters -- Partial-Adopters	Groups Compared		Partial-Adopter -- Full-Adopter
		Non-Adopter -- Full-Adopter		
Relative Advantage	-	*		*
Compatibility	-	*		**
Trialability	-	-		-
Observability	-	*		**
Complexity	-	*		*

* $p < .01$ ** $p < .05$

Therefore the null hypothesis as it applied to each of the five characteristics of an innovation was rejected and Rogers and Shoemaker's generalizations pertaining to the existence and nature of a relationship between perceived characteristics of an innovation and rate of adoption as reflected in Alternative Hypothesis 1 were felt to be substantiated. However there was a degree of tentativeness about the acceptance of the generalization pertaining to the characteristic of trialability. This tentativeness was accentuated by the relatively low test-retest reliability that characterized teachers' perceptions on trialability items (Table III).

Discussion

Although the classroom teacher is to some extent limited in decision-making powers by the nature of the bureaucratic-type organization to which he belongs it would appear that the extent to which he adopts innovations nevertheless varies with his perceptions of important attributes of the innovation. This finding suggests the need for giving significant consideration to classroom teachers whenever new curricula are developed and diffused.

In this instance, however, lack of uniformity of differences between mean scores of characteristics suggests a further implication. That is, it appears that the characteristics of an innovation are, as Kohl (1969) has inferred, of unequal importance in influencing rate of adoption. For example, differences in mean scores of Non-Adopters and Full-Adopters on the characteristic of relative advantage

Table IX

Comparison of Means of Non-Adopter Group and Total-Adopter Group on Perceived Trialability of the Innovation

Group	Perceived Trialability			
	Mean	S.D.	<u>t</u> value	p-one tail
Non-Adopter (N = 71)	2.29	.61		
			2.61	.0048
Total-Adopter (N = 172)	2.08	.57		
Total (N=243)	2.14	.58		

are considerably larger than differences in mean scores of these groups on any other characteristic. The problem of relative importance of specific characteristics at the various stages of the adoption process is investigated further in Question 7.

One of the assumptions underlying this study is that teachers' perceptions of the attributes of the innovation in question are not artifacts of the degree of adoption that has been accomplished. With this in mind, mean scores of the Non-Familiar group and the combined membership of all other groups on the characteristic of compatibility were compared by t test. (The Non-Familiar group did not respond to items pertaining to characteristics other than compatibility.) As is illustrated in Table X the t value of -1.001 was not significant at the established alpha level. It might

therefore be inferred that adopters' perceptions of the characteristics of the innovation did not alter appreciably as adopters became familiar with the innovation and implemented it.

Table X

Comparison of Means of Non-Familiar Group and Combined Membership of Other Groups on Perceived Compatibility of the Innovation

Group	Perceived Compatibility			
	Mean	S.D.	t value	p-two tail
Non-Familiar (N = 74)	2.44	.43	-1.001	.3178
Total Familiar (N = 243)	2.51	.50		
Total (N = 317)	2.49	.48		

Hypothesis 2

Teachers who perceive that they have received more assistance and encouragement from (a) the principal (or vice-principal)
 (b) supervisory personnel (e.g. superintendent, supervisor, or curricular associate)
 (c) other teachers
 tend to adopt innovations more quickly.

Mean scores of Non-Adopters, Partial-Adopters, and Full-Adopters on each of the three change-agent variables are presented in Table XI. Means were tested for significance of differences by one way analysis

Table XI

Mean Scores of Non-Adopters, Partial-Adopters, and Full-Adopters on Perceived Influence of Change Agent Personnel

Adopter Group	Principal (or vice-principal)		Supervisory Staff		Other Teachers	
	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
Non-Adopter (N = 71)	2.07	.96	2.20	1.17	2.08	.89
Partial-Adopters (N = 86)	2.64	.92	2.41	1.07	2.51	1.00
Full-Adopters (N = 86)	2.97	1.20	2.80	1.23	2.83	1.17
Total (N = 243)	2.59	1.09	2.49	1.18	2.50	1.07

of variance and the Scheffé Multiple Comparison of Means. When mean scores of each group on each change agent variable were compared by analysis of variance, F ratios were found to be within the established probability range. (Table XI(A)). Significant differences between mean scores of Non-Adopters and Full-Adopters were subsequently found to exist on each of the three components of change-agent influence (Table XI(B)). Significant differences between the mean scores of Non-Adopters and Partial-Adopters were found to exist for "assistance received from the principal (or vice-principal)" and "assistance received from other teachers." As a result of the statistical analyses employed, Null Hypothesis 2 was rejected and Alternative Hypothesis 2 of significantly higher mean scores at advanced stages of the adoption process than at preliminary stages was accepted.

When mean scores of the Non-Familiar and Non-Adopter groups on each of the change agent variables were compared by t test no significant statistical differences were found to exist (Table XII). This finding suggests that Non-Adopters perceived themselves to have received minimal assistance or encouragement to implement the new curriculum from any of the various change-agent personnel.

Discussion

The results of the statistical testing of Hypothesis 2 suggest that all types of change-agent personnel served a useful purpose in assisting and encouraging teachers to adopt the new social studies curriculum. It was pointed out in Chapter II, however, that there is little consensus among educational authorities and researchers as

Table XI(A)

Summary of Analysis of Variance on Perceived Influence of Change Agent Personnel
over Non-Adopters, Partial-Adopters, and Full-Adopters

Change Agent	Sum of Squares Between Within	Mean Scores Between Within	d.f. Between Within	F	p
Principal (or vice- principal)	31.48 259.37	15.74 1.08	2 240	14.56	.0000
Supervisory Personnel	15.06 321.64	7.53 1.34	2 240	5.62	.0041
Other Teachers	21.38 257.37	10.69 1.07	2 240	9.97	.0001

Table XI(B)

The Scheffé Comparison of Means of Non-Adopters, Partial-Adopters, and Full-Adopters
on Perceived Influence of Change Agent Personnel

Change Agent	Non-Adopter -- Partial-Adopter	Groups Compared		Partial-Adopter -- Full-Adopter
		Non-Adopter -- Full-Adopter	Partial-Adopter -- Full-Adopter	
Principal (or vice-principal)	*	*		-
Supervisory Personnel	-	*		-
Other Teachers	**	*		-

* p < .01

** p < .05

Table XII

Comparison of Means of Non-Familiar Group and Non-Adopter Group on Perceived Change Agent Influences

Group	Perceived Change-Agent Influence					
	<u>Principal (or vice-principal)</u>		<u>Supervisory Staff</u>		<u>Colleagues</u>	
	Mean (and S.D)	<u>t value</u> p-two tail	Mean (and S.D)	<u>t value</u> p-two tail	Mean (and S.D)	<u>t value</u> p-two tail
Non-Familiar (N = 74)	2.05 (1.33)		1.95 (1.17)		1.93 (1.14)	
		-.08 .9328		-1.29 .1974		-.89 .3732
Non-Adopter (N = 71)	2.07 (0.96)		2.20 (1.17)		2.08 (0.89)	
Total (N = 145)	2.06 (1.16)		2.07 (1.17)		2.01 (1.02)	

to which change-agent personnel are most effective and influential in assisting teachers to implement innovations. Differences between mean scores of the three groups on each of the change-agent variables are such that it would appear that, in this instance, different change-agent personnel performed different functions at the various stages of the adoption process. For example, perceived amount of influence of both the principal (or vice-principal) and other teachers varied significantly from Non-Adopters to Partial-Adopters. Mean scores for perceived influence of supervisory staff, on the other hand, were not significantly different as perceived by those two groups. The problem of the importance of various types of change-agent influence at different stages of the adoption process is subjected to closer scrutiny in the testing of Question 8.

Hypothesis 3.

Teachers who perceive that they have received more assistance and encouragement from in-service activities tend to adopt innovations more quickly.

Mean scores of each of the Non-Adopter, Partial-Adopter, and Full-Adopter groups on perceived influence of in-service are presented in Table XIII. Information presented in Table XIII(A) and Table XIII(B) indicates that significant differences existed between mean scores of Non-Adopters and Full-Adopters, and between mean scores of Partial-Adopters and Full-Adopters, on perceptions of in-service assistance and encouragement when pertinent data was tested by one way analysis of variance and the Scheffé Multiple

Table XIII

Mean Scores of Non-Adopters, Partial-Adopters, and Full-Adopters
on Perceived Influence of In-Service

Adopter Group	Perceived Influence of In-Service	
	Mean	S.D.
Non-Adopters (N = 71)	2.48	1.04
Partial-Adopters (N = 86)	2.77	.85
Full-Adopters (N = 86)	3.14	1.03
Total (N = 243)	2.81	1.00

Comparison of Means. The Null Hypothesis of no significant difference between the mean scores of the three groups on the variable of perceived in-service influence was therefore rejected and Alternative Hypothesis 3 was accepted.

When mean scores of the Non-Familiar and Non-Adopter groups were compared on the variable of perceived in-service influence by t test, the t value of -1.643 was found to be statistically nonsignificant (Table XIV). This suggests that, as was the case with change-agent influences, Non-Adopters had in reality perceived themselves to have received very little assistance or encouragement from in-service activities.

Table XIII(A)
Summary of Analysis of Variance on Perceived Influence of In-Service over Non-Adopters,
Partial-Adopters, and Full-Adopters

Sums of Squares Between Within	Mean Scores		d.f.		F	P
	Between	Within	Between	Within		
17.27	8.64	.95	2	240	9.12	.0002

Table XIII(B)

The Scheffé Comparison of Means of Non-Adopters, Partial-Adopters,
and Full-Adopters on Perceived Influence of In-Service

Non-Adopter -- Partial-Adopter	Non-Adopter -- Full-Adopter	Partial-Adopter -- Full-Adopter
	*	**

* $p < .01$

** $p < .05$

Discussion

It would appear that in-service activities were regarded by teachers as of considerable importance in assisting them to implement the new curriculum. However, differences between mean scores of Non-Adopters and Partial-Adopters were not statistically different, suggesting that in-service activities served a less useful purpose with teachers at preliminary stages of the adoption process than with teachers at advanced stages of the process. This possibility is investigated further in the testing of Question 8.

Hypothesis 4

There is no difference in the rate of adoption of educational innovations among teachers with differing amounts of teaching experience.

The results of the data analysis support Hypothesis 4. Teachers were categorized according to the extent of their teaching experience, and mean rate of adoption indices were calculated for each group (Table XV). The F value of 1.36 was not found to be significant when means were tested by one way analysis of variance. The hypothesis, stated in null form, was therefore accepted.

Discussion

Although a review of literature, and the subsequent null form of Hypothesis 4, suggested that rate of adoption of the new curriculum would not vary in accordance with extent of teaching experience, the results described above are nevertheless interesting. It might well have been conjectured that the new social studies

Table XIV

Comparison of Means of the Non-Familiar Group and the Non-Adopter Group
on Perceived In-Service Influence

Group	Perceived In-Service Influence			
	<u>Mean</u>	<u>S.D.</u>	<u>t value</u>	<u>p-two tail</u>
Non-Familiar (N = 74)	2.19	1.08		
			-1.643	.1026
Non-Adopter (N = 71)	2.48	1.04		
Total (N = 145)	2.33	1.06		

Table XV

Summary of Analysis of Variance of Mean Rate of Adoption Indices of Six
Experience Groups

Years of Teaching Experience	Frequency	Percentage Frequency	Mean Rate of Adoption Index
0 - 2 years	52	21.84	2.54
3 - 5 years	50	21.02	2.48
6 - 9 years	46	19.33	2.25
10-15 years	41	17.23	2.48
16-20 years	23	9.66	2.14
21 or more years	26	10.92	2.03
Total	238	100.00	2.37

d.f. 5
232
F 1.36
p 0.2390

requires the acceptance of a novel philosophy of education before it can be accepted and therefore that inexperienced teachers would adopt it more quickly than their colleagues who are more experienced and perhaps more established and less flexible in their own value-orientation.

The results of the data analysis suggest a number of alternative possibilities. Firstly, years of experience may be an unimportant variable in accounting for differences in rate of adoption because of the significance of such other factors as influence of change-agent personnel and in-service training. Or it may be that the new curriculum does not require a major adjustment of personal philosophy at all. Indeed, written comments on the opinionnaire by a number of experienced teachers indicated that they perceived that there is really very little that is "new" about the new social studies.

A third possibility is that teachers at all experience levels perceived that the new curriculum represents a change that is in keeping with desirable trends in education. This possibility is substantiated by mean scores of various adopter groups on the characteristic of compatibility as contained in Table VIII. Although scores of the various groups were significantly different on perceptions of that characteristic, all groups tended towards agreement with the philosophy of the new curriculum.

Thus, no experience-group can be singled out as requiring particular encouragement or assistance to implement the new curriculum. Neither can any specific experience group be expected to demonstrate

outstanding opinion leadership at any of the stages of the process of adoption of the innovation in question.

Hypothesis 5

Teachers who have more years of professional training tend to adopt innovations more quickly.

Teachers were categorized into four mutually exclusive groups according to the extent of their professional training. One way analysis of variance of mean rate of adoption scores for each group gave an overall F ratio of 1.12 which was statistically nonsignificant (Table XVI). Therefore the Null form of Hypothesis 5 was accepted.

Table XVI

Summary of Analysis of Variance of Mean Rate of Adoption
Indices for Groups Differing in Amount of Professional
Training

Years of Training	Frequency	Percentage Frequency	Mean Rate of Adoption Index
0 - 2 years	54	22.78	2.44
3 years	40	16.88	2.39
4 years	112	47.26	2.26
5 - 6 years	31	13.08	2.62
Total	237	100.00	2.37

d.f. 3
 233
F 1.12
p .3436

Discussion

The results of the testing of Hypothesis 5 are contrary to most of the research findings and authoritative opinions that have dealt with the relationship between rate of adoption and educational background. Nevertheless the results are not completely surprising. Table IV indicates that the majority of teachers in the sample for this study had four or more years of professional teacher training. The relatively easy availability in Alberta of opportunities for studies in education may mean that the well-educated teacher is not distinguished from his colleagues in terms of knowledge and resources in the way that, for example, the well-educated farmer is distinguished from other farmers. Thus, while surveys of rural sociology research literature continue to demonstrate the importance of educational background as a factor related to innovativeness of farmers, (see, for example, Lionberger (1960), cited in Chapter II), this factor may be declining in importance as it applies to educators. Also, it may well be that classroom teachers who have less prominent educational qualifications feel some pressure to attempt innovative practices because of concern for employment security.

However, generalizations based upon the testing of Hypothesis 5 must be qualified by one circumstance. It was suspected that the research population comprised a comparatively large number of teachers with four or more years of teacher training because of the geographical region from which the sample was obtained. Teachers in the city of Edmonton (from which almost half of the sample was obtained) are

claimed to have the highest average number of years of teacher training of any school jurisdictions in Alberta. Although figures were not available, Mr. T. F. Rieger, an official of the Alberta Teachers' Association, confirmed the likelihood of this possibility.

IV. Testing the Research Questions

This research project was to a large extent exploratory. That is, a number of problems pertaining to the implementation of the new Alberta social studies curriculum which were felt to be in need of investigation were dependent upon factors which were purely local and hence had no precedent in educational research.

Several of the research questions are concerned with rate of adoption of the new curriculum as the dependent variable, and are believed to be most appropriately tested by one way analysis of variance. Questions which seek to determine those influences which best distinguish between the various functions (or stages) of the adoption of the innovation are tested by the statistical procedure of stepwise regression. Teachers' in-service preferences are determined by frequency cumulations and rank order. Finally, analysis of the second question, which seeks to determine teacher reactions to the important characteristics of the new curriculum, is supplemented by written comments supplied by a number of teachers at the time of responding to the research opinionnaire.

Question 1

To what extent had the 1971 Alberta social studies curriculum been adopted in May, 1972?

This question was answered indirectly earlier in this chapter in the section entitled "The Composition of the Adopter Categories." A summary of pertinent information is presented in Table V. As previously mentioned, 23.3% of the total sample claimed to be not familiar with the new curriculum, or the teachers' handbook Experiences in Decision Making. Most members of the Non-Familiar group were teachers of primary grade levels (Table VI). A further 22.4% of the sample claimed to be familiar with the new curriculum but to be making no attempt to teach according to its precepts at the time of the research. A total of 54.3% of the population for the study claimed to be attempting to incorporate elements of the new curriculum into their teaching of social studies. Approximately half of this group had mean scores of 3.0 or more on the Innovation Adoption Scale, which indicated that they were utilizing at least several of the unique features of the new curriculum quite extensively. The remaining half of the total adopter group had mean scores of less than 3.0 on the Innovation Adoption Scale, suggesting that they were attempting to incorporate only a few elements of the new approach, in a limited fashion, into their teaching of social studies.

Discussion

Because the study was conducted in one compact geographical region of Alberta, it is impossible to generalize as to the extent

to which the new Alberta social studies curriculum has been adopted in elementary classrooms throughout the entire province. Nevertheless, the finding that more than half of the research population claimed to be attempting to teach the new curriculum might be regarded as pleasing in view of the fact that the provincial Department of Education has not to date stipulated mandatory implementation. On the other hand, most teachers had at the time of the research been exposed to the rationale and course outline of the innovation for about three and a half years. During this time much has been written in newspapers and teachers' magazines about the innovation and considerable attention had been focused upon the unique features of the curriculum at a number of teachers' conventions and at many local in-service meetings. Also, in many school jurisdictions throughout the province, including some from which the research sample was extracted, groups of teachers are known to have met on a voluntary basis to plan social studies units according to the requirements of the new approach. Local branches of the A.T.A. Social Studies Specialist Council have performed a particularly useful leadership function in this regard.

In view of the extent to which the new curriculum has been promoted and discussed over a considerable period of time, the finding that only 27.1% of elementary social studies teachers in the sample were attempting to implement it to any considerable extent might therefore be regarded as disappointing.

It is felt, however, that an indication of the likely fate of the 1971 Alberta Social Studies Curriculum is better obtained by appraising teacher attitudes towards the various components of the new curriculum than by mere determination of the extent to which the innovation had been adopted at the time of the research. This problem is approached in the testing of Question 2.

Question 2

How are the attributes of the new curriculum perceived by teachers at different stages of the adoption process?

Mean scores of the Non-Adopter, Partial-Adopter, and Full-Adopter groups, and of the combined group membership on items pertaining to each of the five characteristics of the new curriculum are presented in Tables XVII through XXI. Items pertaining to each characteristic are listed in the rank order of the mean scores of the total membership of the three groups.

A rank order of relative advantage items is presented in Table XVII. The table indicates that the groups were in very close agreement in rank order of mean scores of relative advantage items. Generally speaking, aspects of the new curriculum pertaining to advantage to students were perceived favourably, while aspects pertaining to relative advantage to teachers were perceived unfavourably. All groups indicated that the new curriculum requires more teacher time and work than is usual with a curriculum innovation. The following comments were added by teachers to the research opinionnaire and illustrate various attitudes towards the relative

advantage of the new curriculum.

My personal feeling is that the majority of elementary teachers are not equipped to take on the responsibility of developing a total unit and in all fairness I do not think they can afford the many hours required to produce one. (Non-Adopter)

To attempt to plan and teach a unit entirely in the new social studies seemed to require so much study of all the aspects that the actual unit became lost in theory. (Partial-Adopter)

I find that it has taken me two months to prepare one unit thoroughly and even then I'm having to make modifications as I'm teaching the unit. (Full-Adopter)

Can't anything be done to ease the burden of preparation? Remember we have other lessons to present besides social studies. (Full-Adopter)

The teacher has great difficulty in evaluating student progress: What criteria will she use? (Full-Adopter)

I can only evaluate my own teaching by evaluating the progress my class is making. With this program there are no concrete objectives or guidelines except what I decide upon myself. I have nothing to compare the efforts of either myself or the class to. It is very frustrating. (Partial-Adopter)

I feel that the new social studies is a good one but if you implement it to its fullest extent with elementary students you may find that later on students will not necessarily have a good background in social studies skills. I strongly hold this opinion since I have experience at the senior high school level and in working with these older students found the lack of these skills quite evident. (Partial-Adopter)

Most of my students are now learning to do research and reports on their own. Many use the library facilities in the school and public libraries to do research on topics that interest them. (Partial-Adopter)

Table XVII

Rank Order of Mean Scores on Relative Advantage Items for
Non-Adopters, Partial-Adopters, and Full-Adopters

Item No.	Description of Item (abbreviated)	Non- Adopters N = 71	Partial- Adopters N = 86	Full- Adopters N = 86	Total Group N=243
5	promoting powers of responsible decision-making in students	2.7	2.5	2.2	2.5
4	developing clear, consistent attitudes and values in children	2.8	2.5	2.1	2.5
2	increasing children's knowledge of social science concepts	2.9	2.6	2.0	2.5
1	interest of subject matter to students	3.0	2.7	2.2	2.6
8	getting enjoyment and satisfaction from teaching social studies	3.5	2.9	2.2	2.8
3	developing social studies skills in children	3.3	2.8	2.7	2.9
7	evaluating student progress	3.8	3.7	3.4	3.6
6	teacher time and work for preparation	4.0	4.0	3.8	4.0
Average		3.3	3.0	2.6	2.9

Children who are slow learners are getting less negative feedback because instead of being told they are wrong "suspended judgment" is used instead. (Full-Adopter)

Although I find it harder to plan (less materials available) I believe that we are pointing in the right direction. I do feel more satisfaction now even though I feel that I need more training before I can teach it effectively. (Partial-Adopter)

Compatibility items as perceived by each group are listed with mean scores in Table XVIII. Mean scores indicate that items were generally perceived favourably although all groups were characterized by indecision on several components of the compatibility characteristic.

The following statements by teachers are indicative of the tendency of respondents from all adopter categories towards agreement with Item 1, that schools have a responsibility to assist the home, church, etc. in the values-education of children.

Certainly the school has a responsibility to assist the home in establishing values. But I cannot agree that the school should assume full responsibility, as a number of parents seem to think. (Partial-Adopter)

Schools do have a responsibility to assist social organizations re value education but not to become the sole agency responsible. (Full-Adopter)

My personal feeling is that the ideal situation would be for the family to remain the basic unit from which the child gains his values. It becomes a very dangerous thing for mankind as a whole when society appoints its institutions responsible in such individual matters. But the school is perhaps the best qualified institution to help students to clarify values in the social situation, a thinking skill of great importance. (Full-Adopter)

I have not yet taught the new social studies, but I think the basic idea is one that we're all going to have to come to grips with sooner or later. I find myself placing much more emphasis on helping kids with personal problems and how to solve them than I did years ago because kids today want and need this kind of help from the school, even the elementary grades. (Non-Adopter)

The following remarks which were added by teachers to their copies of the opinionnaire illustrate the lack of consensus that marked teachers' perceptions of the attitude of the general public towards the value-orientation of the new program.

Even though the home, church, and so on purport to teach values, they are not doing their job. They are however extremely reluctant to admit this and let anyone else do it. (Partial-Adopter)

I think that society wants us to transmit the 'traditional' values—we can examine controversial issues as long as we come up with the 'right' answers. (Non-Familiar)

Children in our society will never be allowed to choose the basic values they will hold. If the community isn't upset by this program it's because people know that one period of social studies a day cannot compete with the influence of home, media, and peer group. (Partial-Adopter)

As a known active member of a minority political party, I feel reluctant to examine certain issues I consider important. (Partial-Adopter)

Mean scores also suggest that all groups were undecided as to whether children are actually capable of discovering the basic human values without indoctrination or example. The following comments are perhaps indicative of teacher opinions on this item.

Table XVIII

Rank Order of Mean Scores on Compatibility Items for Non-Adopters,
Partial-Adopters, and Full-Adopters

Item No.	Item Description (abbreviated)	Non- Adopters N = 71	Partial- Adopters N = 86	Full- Adopters N = 86	Total N=243
1	schools have a responsibility in values-education	2.1	1.8	1.7	1.9
3	by examining value issues, children will be better equipped to use personal freedom responsibly	2.4	2.2	1.9	2.2
7	society wants schools to take some responsibility for values-education	2.2	2.3	2.2	2.2
4	students should learn how to choose for themselves the values they will choose	2.6	2.4	2.2	2.4
6	knowledge and skills object- ives should always be means to values objectives	2.6	2.7	2.5	2.6
9	society approves of children inquiring into controversial issues etc.	2.7	2.7	2.6	2.6
2	value teaching should be done on a deliberate, planned basis	3.0	2.9	2.4	2.7
10	the public accepts that children should examine value issues pertaining to family matters etc.	2.9	2.7	2.7	2.8
5	children are capable of "dis- covering" the basic human values without indoctrination, etc.	3.0	2.9	2.7	2.8
8	society believes that children should learn how to choose the values they will hold	2.9	2.9	2.8	2.9
Average		2.6	2.6	2.4	2.5

On what basis of experience can an elementary student learn how to choose for himself the values he will hold? Are not basic values transmitted to children in the home, the school and by social contacts simply because that is the only way they can be acquired? (Non-Adopter)

I feel Grade 4 children are not mature enough or experienced enough to discover human values alone. However by class discussion and some real life situations they can be encouraged to reason out what is loyal, honest and fair, and to decide on freedom when it doesn't hurt others. (Full-Adopter)

They (children) need assistance if we want to promote any values other than the mass media pop-culture values, but how can a public education system for all dedicated to inquiry and truth support any set of values or prejudices in a pluralistic society? Perhaps what we must have if we are to permit children to choose values is to expose them to a plurality of institutions, and these we don't have. (Partial-Adopter)

As regards trialability, all groups were in agreement that the new curriculum can be implemented a little at a time, and that the value-oriented philosophy of the new social studies can be applied to the subject matter of the old.(Table XIX). All groups tended towards disagreement with observability items, that is that the philosophy and strategies of the new curriculum are easy to discuss with others, and that the effects of the new curriculum are easily observed (Table XX). However, several Full-Adopters made written comments which suggested that a major reason why the philosophy and strategies are difficult to discuss is that teachers at less advanced stages of adoption do not have sufficient understanding or appreciation

Table XIX

Rank Order of Mean Scores on Trialability Items as Perceived by
Non-Adopters, Partial-Adopters, and Full-Adopters

Item No.	Item Description (abbreviated)	Non- Adopters N = 71	Partial- Adopters N = 86	Full- Adopters N = 86	Total N=243
12	The new curriculum can be implemented a little at a time	2.2	2.0	2.0	2.0
11	The value-oriented philosophy can be applied to the subject matter of the old curriculum	2.4	2.2	2.1	2.2
Average		2.3	2.1	2.1	2.1

Table XX

Rank Order of Mean Scores on Observability Items as Perceived by
Non-Adopters, Partial-Adopters, and Full-Adopters

Item No.	Item Description (abbreviated)	Non- Adopters N = 71	Partial- Adopters N = 86	Full- Adopters N = 86	Total N=243
14	The philosophy and strategies of the new curriculum are easy to discuss with colleagues	3.7	3.5	3.1	3.4
13	The effects of the new curriculum on students are easily described	3.8	3.8	3.6	3.7
Average		3.7	3.7	3.3	3.6

of what the new curriculum involves to permit discussion to take place. Also, a number of teachers made observations such as the following:

The immediate value of some learning is not always apparent. You do not know how important swimming lessons are until you're drowning, etc. (Partial-Adopter)

Each of the three groups tended to perceive the new curriculum as being more complex to understand and to put into actual practice than is the case with most educational innovations. Complexity items are listed in rank order from least difficult to most difficult in Table XXI. In particular, teachers appeared to have experienced considerable difficulty in developing appropriate social studies lessons and units, in actually applying the suggested valuing strategies, and in understanding the nature of their own role as social studies teachers. Written comments made by teachers illustrate some of the major difficulties that appear to have been faced.

I think most of the difficulty in understanding the content guide in Experiences in Decision Making stems from the format and terms used. The sample units are set out in a clearer sequence and thus are not so confusing. (Full-Adopter)

Understanding what is being asked of teachers and putting it into practice are two different things. I feel I understand the aims of the course fairly well but transferring that into something tangible and useful in Grade 3 is quite another matter. (Partial-Adopter)

I agree that the teaching of values is the responsibility of schools but I feel completely inadequate and untrained to do so. How to discover values such as honesty, goodness, etc. in the context of comparing a jungle to a city is so difficult. Ministers train for years to do just those things and their efforts have not always achieved results. (Non-Adopter)

The first unit I taught was a sample unit which I modified to suit my own purposes, and I enjoyed it. But to plan a unit like that myself takes weeks of work by which time I am tired of the whole thing. I find this type of work difficult to reconcile with my role as a teacher of several classroom subjects. (Partial-Adopter)

What if they (children) choose undesirable values? I must admit that I would never allow that to happen in my class (knowingly). But I don't understand how we can say this program is in the best interests of children when that could happen. (Non-Adopter)

Discussion

The generally favourable reception accorded by classroom teachers in the research sample to items pertaining to the attribute of compatibility suggests that the new curriculum has the potential to capture the interest and support of the average classroom teacher. But teachers in the research sample were obviously concerned at the large amounts of time and work that they perceived to be necessary to develop appropriate teaching units and at the relative difficulty of evaluating students and of applying specific valuing strategies in the classroom. It seems apparent that if efforts could be made to supply classroom teachers with more resources than they presently have, and if more specific guidelines with respect to evaluation and to implementation of actual valuing strategies could be issued, the

fuller adoption of the new curriculum would be facilitated.

Comments written by teachers suggest one further implication of importance. A large number of teachers at various stages of adoption of the new curriculum referred to the difficulty of obtaining appropriate materials and resources to enable them to satisfactorily implement the new curriculum. Following are a few such comments.

Added to this is a difficulty in finding suitable materials and limiting or expanding information available on relevant topics. My students have little choice in what they study—we study topics on which there is suitable material available and obtainable. (Partial-Adopter)

Unless proper resources are available, teaching of social studies according to the new approach is restricted too much to discussion. There is a limit to what children can learn from each other. (Partial-Adopter)

The Department of Education is right in suggesting that knowledge should not be an end in itself. But if it is to be a means to an end, children have to be exposed to it. I have yet to see reading material that is appropriate to the teaching of values by the methods suggested. (Full-Adopter)

In my thirty years of teaching I have not seen a program which emphasizes variety of instructional materials as much as this one does. While I am excited by the whole idea, I cannot see myself teaching it successfully when I have no instructional materials to work with. (Partial-Adopter)

Table XXI

Rank Order of Mean Scores on Complexity Items as Perceived by Non-Adopters, Partial-Adopters, and Full-Adopters

Item No.	Item Description (abbreviated)	Non-Adopters N = 71	Partial-Adopters N = 86	Full-Adopters N = 86	Total N=243
6	understanding the reasons for the value-orientation	3.2	3.0	2.3	2.8
5	using the sample units in the handbook	3.2	3.1	2.8	3.0
4	understanding the contents of the handbook	3.3	3.2	2.8	3.1
1	understanding the objectives	3.3	3.3	2.9	3.2
2	understanding the role of the teacher	3.7	3.6	3.1	3.5
3	developing units and lessons around value issues	4.0	4.1	3.5	3.9
7	putting valuing strategies into practice	4.0	4.1	3.6	3.9
Average		3.5	3.5	3.0	3.3

It would appear that lack of materials and appropriate resources is a problem which must be faced not only by classroom teachers, but by all who are interested in promoting the adoption of the new Alberta social studies curriculum. Furthermore, it would seem that availability of resources appropriate to the adoption of an innovation is a component that should be considered in research which involves perceptions of the characteristics of an educational innovation. Perhaps the characteristic of relative advantage, as defined by Rogers and Shoemaker (1971) ought to be expanded to include reference to availability of suitable resources and materials. (Rogers and Shoemaker's theory is based largely on research in the field of sociology and in case studies that are described by the authors availability of resources never emerges as a problem.)

Question 3

How are the attributes of the new curriculum perceived by teachers at different grade levels in the elementary school?

When mean scores on perceptions at each grade level of the five characteristics of an innovation were compared by one way analysis of variance, no significant differences were found to exist. Information pertinent to the testing of Question 3 is summarized in Table XXII.

Discussion

The finding that the characteristics of the new Alberta social studies curriculum were perceived alike at each of the elementary grade levels has several implications. Low mean scores at each

Table XXII

Summary of Analysis of Variance of Mean Scores of Grade Level
Groups on the Perceived Characteristics of the Innovation

Grade Level	Frequency	Mean Scores of Perceptions of each Characteristic				
		<u>Relative Advantage</u>	<u>Compat- ibility</u>	<u>Trial- ability</u>	<u>Observ- ability</u>	<u>Complexity</u>
1	25	2.8	2.4	2.1	3.4	3.2
2	36	2.9	2.6	2.3	3.6	3.3
3	44	3.0	2.6	2.3	3.6	3.3
4	53	3.1	2.6	2.1	3.6	3.4
5	37	2.8	2.4	2.1	3.7	3.5
6	41	2.8	2.5	2.1	3.5	3.3
Total	236	2.9	2.5	2.1	3.6	3.3
d.f.	5	5	5	5	5	5
F	230	230	230	230	230	230
	1.11	1.66	1.85	.40	1.13	
p	.35	.14	.10	.85	.35	

grade level on the compatibility characteristic, for example, indicate that the value-oriented rationale of the new curriculum was felt to be appropriate for students at all grade levels. Relatively high mean scores at each grade level on the characteristic of complexity suggest that deterrents to adoption of the new program were as powerful at any one grade level as at others. Similarly, comments that were made in the discussion of Question 2 regarding the overall perceived relative advantage, trialability, and observability of the curriculum would appear to apply as much to any one grade level as to others.

Question 4

Does rate of adoption of the 1971 curriculum vary with elementary grade level taught?

To test this question, teachers who claimed to be familiar with the new curriculum were grouped according to grade level taught. Those subjects who taught more than one elementary grade level for social studies were randomly allocated to one of the grade levels indicated. Mean rate of adoption indices were then calculated for each grade level group. Analysis of variance of the adoption indices of these groups gave an F ratio of 1.37 which was not significant at the established .05 probability level (Table XXIII).

Discussion

It should be noted, first of all, that although rate of adoption of the new social studies curriculum did not appear to vary according to grade level, the Non-Familiar portion of the

Table XXIII

Summary of Analysis of Variance of Mean Rate of Adoption Indices for Elementary
Grade Level Groups

Grade Level	Frequency	Percentage Frequency	Mean Rate of Adoption Index
1	25	10.59	2.29
2	36	15.25	2.07
3	44	18.64	2.46
4	53	22.46	2.21
5	37	15.68	2.56
6	41	17.38	2.54
Total	236	100.00	2.36

d.f. 5
230
F 1.37
p .2364

research sample consisted mainly of teachers at the primary grade levels (see Table VI) and this group was excluded from the population for the testing of the research questions. It may be that at the lower elementary grade levels, particularly Grade 1, social studies is not regarded as a "core" subject, or as a subject that must be taught in isolation. Therefore teachers at these grade levels may feel less necessity to become familiar with specific new social studies practices and programs.

Nevertheless, primary teachers who were familiar with the new curriculum had adopted it as extensively as had teachers at other elementary grade levels. The finding that rate of adoption of the new social studies by teachers familiar with it was quite uniform throughout the elementary grades has one possibly important implication. It suggests, as was mentioned in the discussion of Question 2, that the new curriculum, with its focus on valuing processes and unique teaching strategies, was regarded by teachers as of equivalent suitability for children at the primary and intermediate grade levels as at upper elementary grade levels.

Question 5

Is there any difference in rate of adoption of the new social studies curriculum for teachers who do have/do not have a social studies background?

Teachers who were social studies majors had a mean rate of adoption index of 2.50, while teachers with alternative major

specializations were found to have a mean rate of adoption index of 2.32. As is illustrated in Table XXIV the \underline{t} value of 1.19 was not significant at the .05 level when the mean indices were compared by \underline{t} test.

Discussion

Although the new Alberta social studies teachers' handbook indicates the importance of an interdisciplinary base of social science concepts (Department of Education, 1971, p.13) the new curriculum is not distinguished by an emphasis on the social sciences. Perhaps for this reason teachers who were social studies majors were apparently no better prepared to implement the new program than were teachers whose major courses of study were in other fields. It would appear that the distinguishing features of the innovation are such that background of training in the social studies was of little importance in encouraging or assisting teachers to adopt it.

Question 6

Is there any difference in rate of adoption of the new curriculum for teachers who do have/do not have University courses in the new social studies?

Mean rate of adoption scores of teachers who do have/do not have University courses in the new social studies were 2.78 and 2.27 respectively. When tested for significance of difference by \underline{t} test the two means were found to be different at the established .05 alpha level. This information is contained in Table XXV.

Table XXIV

Comparison of Mean Rate of Adoption Indices of Teachers Who Have/
Have Not a Social Studies Major Background

Classification	Frequency	Mean Rate of Adopt- ion Index	S.D.	<u>t</u> value	p-two tail
Teachers with social studies major back- ground	62	2.50	1.13		
				1.19	.2359
Teachers without social studies major back- ground.	176	2.32	1.02		
Total	238	2.37	1.05		

Table XXV

Comparison of Mean Rate of Adoption Indices of Teachers Who Have
/Have Not University Courses in the New Social Studies

Classification	Frequency	Mean Rate of Adopt- ion Index	S.D.	<u>t</u> value	p-two tail
Teachers with Uni- versity courses in the new social studies	46	2.78	1.09		
				3.053	.0025
Teachers without Uni- versity courses in the new social studies.	192	2.27	1.02		
Total	238	2.37	1.05		

Discussion

At the University of Alberta, courses in elementary social studies curriculum have been gauged at assisting student teachers and classroom teachers to implement the new Alberta curriculum for at least two years. It would seem that these courses have served a useful purpose in encouraging adoption of the new curriculum. Thus, while it must be recognized that many who take the courses in question are interested in social studies instruction and innovative practices prior to enrollment, it would appear to be unfortunate that greater numbers of social studies teachers are not able to avail themselves of the opportunity to acquire the knowledge and skills that the university classes apparently offer.

Question 7

Which of the attributes of an innovation as perceived by classroom teachers are most important in distinguishing between the stages of the process of adoption of the 1971 Alberta social studies curriculum?

Question 7 was tested by calculating correlations of the five characteristics of the new curriculum with stages of adoption and by then using the procedure of stepwise regression to determine the total amount of variance between stages of adoption accounted for by characteristics at the acceptable .05 probability level. The chief value of the stepwise procedure, as compared with other regression models, is that at every stage of the regression there occurs a re-examination of the variables previously incorporated

into the model. Thus a variable which may have been the best single variable to enter at an early stage may, at a later stage, be superfluous because of the relationship between it and other variables within the regression. (Draper & Smith, 1966, p.171)

Correlations of mean scores on each characteristic with the "knowledge" (or Non-Adoption) and "persuasion" (or Partial-Adoption) stages of the adoption process were determined after subjects at each stage had been assigned the numerical indices of 1.0 and 0.0 respectively. Then, stepwise regression was performed and it was found that the characteristic of trialability was of significance in accounting for variance between Non-Adoption (the "knowledge" stage of Rogers and Shoemaker's 1971 adoption process) and Partial-Adoption (the "persuasion" stage) although to the extent of less than 3% of total variance.

Between Partial-Adoption and Full-Adoption, that is between the "persuasion" and "decision" stages of Rogers and Shoemaker's adoption process, the characteristics of relative advantage and complexity were found to account for approximately 25% of total variance significant at the .05 probability level. Between Non-Adoption and Full-Adoption, that is between the "knowledge" and "decision" stages of the adoption process, the same two characteristics were most important in accounting for variance, once again to the extent of approximately 25% of total variance. This information is contained in Table XXVI.

Table XXVI

Results of Stepwise Regression of Perceived Characteristics with Stages of Adoption as the Criterion Variable

Adoption Stages	Step at Which Variable Entered	Correlation with Adoption Stages	Probability Level for Variable Entered	Cumulative Variance Accounted For
Knowledge=1.0 (N=71)	1. Trialability	.17	.03	2.9%
	2. Relative Advantage	.14	.07	5.0%
	3. Complexity	.04	.43	5.4%
	4. Observability	.02	.84	5.4%
	5. Compatibility	.09	.92	5.4%
Persuasion=0.0 (N=86)	1. Relative Advantage	-.43	.00	18.2%
	2. Complexity	-.40	.00	24.5%
	3. Observability	-.22	.37	24.8%
	4. Trialability	-.01	.62	24.9%
	5. Compatibility	-.20	.56	25.1%
Decision=1.0 (N=86)	1. Relative Advantage	.47	.00	22.2%
	2. Complexity	.37	.01	25.2%
	3. Trialability	.19	.12	26.4%
	4. Observability	.25	.27	27.0%
	5. Compatibility	.29	.71	27.0%
Knowledge=1.0 (N=71)	1. Relative Advantage	.47	.00	22.2%
	2. Complexity	.37	.01	25.2%
	3. Trialability	.19	.12	26.4%
	4. Observability	.25	.27	27.0%
	5. Compatibility	.29	.71	27.0%

Discussion

The findings outlined above substantiate in part those of Kohl (1966) but not those of Rogers and Shoemaker (1971) as discussed in Chapter II. Kohl inferred that relative advantage is the most important characteristic at the "decision" stage, while Rogers and Shoemaker claimed that at the "decision" stage of the adoption process perceptions of the characteristic of trialability should be most important. Stepwise regression analyses performed to test Question 7 of this research project indicated that the group of teachers at the "decision" stage of the adoption process was best distinguished from groups at other stages ("knowledge" and "persuasion") by perceptions of the characteristics of relative advantage and complexity. Rogers does not claim that any one characteristic is of outstanding importance over the entire adoption process. Kohl, however, makes such a claim with reference to the characteristic of compatibility. The results of the stepwise regression analyses performed to test Question 7 have implications for Kohl's observation.

Firstly, as has been stated, the characteristics of relative advantage, complexity, and trialability were significant in accounting for variance between stages of adoption of the 1971 Alberta social studies curriculum. On the other hand, the characteristic of compatibility was the overall weakest of Rogers' attributes in distinguishing between stages of adoption. But, as was mentioned

in discussing Question 2, the value-oriented philosophy of the new curriculum appears to have been well accepted by all groups of teachers who comprised the sample for this study. Therefore, high compatibility may, in this instance, have been an essential requisite before adoption could occur (while being of little significance in accounting for variance between stages of adoption), and vital to the eventual diffusion of the innovation. Hence, while the findings of this research do not substantiate Kohl's claims, neither do they suggest evidence that is contrary to that forwarded by Kohl.

The relative importance of the various characteristics of an innovation in differentiating between teachers at various stages of adoption of the new Alberta social studies curriculum would appear to have implications for those involved in facilitating the fuller adoption of the new curriculum.

Firstly, perceptions of the characteristics of the new Alberta social studies curriculum appeared to be considerably more important in accounting for variance in adoption at the more advanced stages of the adoption process than at preliminary stages. Since in excess of half of the research population was either at, or approaching, advanced stages of adoption, it would seem that increasing importance should be attached to certain characteristics of the new curriculum by those interested in, or responsible for, fuller adoption. Stufflebeam (1967) has claimed that evaluation of "process" and "product" should enable recommendations to be made which lead

to the refinement of a curriculum innovation to permit it to better achieve its intended purpose. (Guba, 1967, pp.33-34) It follows from the testing of Question 7 that in this instance recommendations should be made based upon considerations of teachers' perceptions of the characteristics of relative advantage and complexity. As was mentioned in the discussion of Question 2, the relative advantage items that were perceived unfavourably by all groups were those items pertaining to advantage to teachers themselves. Considerable attention has already been devoted to the problems that teachers perceived to exist regarding unavailability of suitable resources, the inordinate amounts of teacher time required to prepare social studies lessons and units, and the problems of student evaluation. It would appear that, if the 1971 Alberta social studies curriculum is to be more fully implemented in the foreseeable future, steps should be taken to ease the burden that teachers perceive to exist and to increase the relative advantage of the new curriculum particularly as it applies to teachers at preliminary stages of adoption.

Reference was also made in the discussion of Question 2 to the difficulties that all adopter groups perceived to exist pertaining to putting the valuing strategies into practice in the classroom and to constructing lessons and units around value issues (complexity items). While the Full-Adopter group had apparently managed to tolerate these perceived difficulties it would appear that adoption of the new curriculum would be hastened if steps were taken to assist teachers at less advanced stages of adoption

to overcome these perceived difficulties.

Finally, the findings of this study appear to substantiate the claims of Carlson (1965b) that the characteristics of an innovation only partially account for the rate of adoption of the innovation. Also, it is concluded from this research project that, with classroom teachers as respondents, the perceived characteristics of an innovation are more important in distinguishing advanced than preliminary stages of the adoption process.

Question 8

Which of the following means of assistance and encouragement as perceived by teachers are most important in distinguishing between the various stages of the process of adoption of the 1971 Alberta social studies curriculum:

- (a) assistance and encouragement received from the principal (or vice-principal)?
- (b) assistance and encouragement received from supervisory personnel?
- (c) assistance and encouragement received from other teachers?
- (d) assistance and encouragement received from in-service activities?

Stepwise regression analysis as previously described was performed in an attempt to determine the relative importance of the various forms of assistance and encouragement to teachers in distinguishing between the stages of the process of adoption of the 1971 Alberta social studies curriculum.

Between the "knowledge" and "persuasion" stages, that is, with Non-Adoption = 1.0 and Partial-Adoption = 0.0, perceived influence of the principal (or vice-principal) accounted for 8.5% of the total variance at the .05 probability level. Between the "persuasion" (Partial-Adoption = 0.0) and "decision" (Full-

Adoption = 1.0) stages, perceived influence of in-service was statistically significant in accounting for 3.8% of total variance. Between the "knowledge" and "decision" stages, that is, with Non-Adoption = 1.0 and Full-Adoption = 0.0, the perceived influences of the principal (or vice-principal) and in-service accounted for a total of 17.0% of total variance. This information is contained in Table XXVII.

Discussion

It was observed in Chapter II that there is little consensus among educational authorities and researchers as to the type of influence which is most successful in encouraging teachers to adopt innovative practices. Reference was made to Rogers' (1962) assertion that the relative slowness with which schools, as compared with other social systems, adopt innovations may derive from the absence in the educational setting of effective change-agents.

The findings of this project seem to substantiate the claims of both Rogers and those who have emphasized the role of the principal in the adoption process. In particular, the principal (or vice-principal) appears to have been most important in encouraging or assisting teachers in their initial efforts to implement the new program. On the other hand, the perceived influence of the principal was of no significance in accounting for variance in rate of adoption between Partial-Adopters and Full-Adopters (that is between the "persuasion" and "decision" stages of the adoption process). It is

Table XXVII

Results of Stepwise Regression of Perceived Forms of Assistance to Teachers with Stages of Adoption as the Criterion Variable

Adoption Stages	Variable Entered (abbreviated)	Correlation with Adoption Stages	Probability Level for Variable Entered	Cumulative Variance Accounted For
Knowledge = 1.0 (N=71)	1. Principal	-.29	.00	8.5%
	2. Other teachers	-.22	.20	9.4%
	3. In-service	-.15	.43	9.8%
	4. Supervisory personnel	-.09	.74	9.9%
Persuasion = 0.0 (N=86)				
Persuasion = 0.0 (N=86)	1. In-service	.19	.01	3.8%
	2. Supervisory Personnel	.17	.13	5.1%
	3. Other teachers	.14	.17	6.1%
	4. Principal	.15	.65	6.2%
Decision = 1.0 (N=86)				
Knowledge = 1.0 (N=71)	1. Principal	-.38	.00	14.2%
	2. In-service	-.30	.03	17.0%
	3. Other teachers	-.33	.07	18.7%
	4. Supervisory personnel	-.24	.82	18.7%
Decision = 0.0 (N=86)				

possible, however, that the influence of the principal figured prominently at the two more advanced stages of adoption of the new curriculum, without accounting for variance of significant proportions, simply because similarly high ratings were attributed the principal by teachers at both of these stages. The information contained in Table XI and discussed in Hypothesis 2 suggests this possibility.

The component of in-service figured most prominently in distinguishing between the "persuasion" and "decision" stages of the process of adoption of the new curriculum though it only accounted for a minimal proportion of total variance. However, the importance of the influence of in-service, combined with that of the principal, in accounting for variance between Non-Adoption and Full-Adoption of the new curriculum suggests that in-service activities did serve a useful purpose in encouraging advanced adoption of the curriculum in question. This finding infers that in-service activities should be on-going, and not merely means of introducing new ideas to teachers.

This finding concurs with the recent claim of Rogers and Shoemaker that "Probably one of the reasons for the relatively high rate of discontinuance of some innovations is that change agents assume that once adoption is secured, it will continue. But without continued effort there is no assurance against discontinuance, because negative messages about an innovation exist in most client systems." (Rogers & Shoemaker, 1971, p.115)

In summary, the findings of Question 8 appear to substantiate the claims of both Rogers (1962) and Carlson (1965a) that there is an absence in the educational setting of effective change agents. Neither other teachers nor various supervisory personnel accounted for any significant variance between stages of adoption of the new curriculum, and the influence of the principal, (or vice-principal) while statistically significant in distinguishing between stages of the adoption process, accounted for relatively small proportions of total variance.

Question 9

Which of the following types of in-service are most preferred by teachers as means of becoming familiar with and implementing the 1971 Alberta social studies curriculum:

- (a) membership on an active unit planning committee?
- (b) workshops and seminars operated by visiting personnel?
(e.g. University or Department of Education)
- (c) workshops and seminars operated by local personnel?
(local supervisor, associates or colleagues)
- (d) conferences on the "new" social studies with expert speakers?
(e.g. Banff Social Studies Conference)
- (e) university courses in the "new" social studies?
- (f) availability of current books and journals on the "new" social studies?
- (g) observation of lessons demonstrating the strategies of the "new" curriculum?
- (h) release time for individual study of the "new" curriculum?
- (i) availability of model units prepared specifically for the new approach?

Teachers' in-service preferences are tabulated in frequency format, accompanied by rank ordering of preferences, in Table XXVIII. "Availability of model units," "observations of demonstration lessons" and "workshops operated by local personnel" were the means of becoming familiar with the new curriculum that were most preferred by all

Table XXVIII

Frequency of In-Service Preferences of Non-Familiars, Non-Adopters, and Adopters

Item Description (abbreviated)	Frequency of Preference			Percent Total	Rank Order
	Non- Familiars N=74	Non- Adopters N=71	Adopters N=172	Total N=317	
Membership on a unit planning committee	24	19	19	62	9
Workshops operated by visiting personnel	24	24	42	90	7
Workshops operated by local personnel	39	33	84	156	3
Conferences on the new social studies	8	5	51	64	8
University courses in the new social studies	28	17	70	115	6
Availability of current books and journals	34	30	83	147	4
Observations of demonstration lessons	52	60	137	249	2
Release time for individual study	26	33	61	120	5
Availability of model units	61	59	135	255	1
Total	296	280	682	1258	400.00

groups. The component least preferred was "membership on a unit planning committee."

Discussion

The findings described above complement the results of the testing of Questions 2, 3, and 4. Reference was made earlier in this chapter to the inordinate amounts of time and effort that teachers perceived to be necessary to develop social studies units appropriate to the new curriculum. Hence, it is not surprising that "availability of model units" was the means of assistance in implementing the new curriculum that was most preferred by teachers, while "membership on a unit planning committee" was the type of in-service activity that was least preferred.

Ratings on items pertaining to the characteristic of observability (Table XX) indicated that all groups perceived that the results of the new curriculum were very difficult to describe or discuss. Ratings on items pertaining to the characteristic of complexity (Table XXI) suggested that teachers were experiencing considerable difficulty in putting the strategies of the new approach into actual practice. Therefore it is not surprising that the second most preferred means of becoming familiar with the new curriculum was "observation of lessons demonstrating the strategies of the new curriculum."

All groups ranked "workshops operated by local personnel" more highly than "workshops operated by visiting personnel." This

is perhaps surprising in view of the fact that in at least several of the school jurisdictions in which the study was conducted considerable use has been made of the services of resource personnel from Regional Offices of Education and the University of Alberta. Also, in view of the earlier finding that University courses in the new social studies appear to have stimulated adoption of the curriculum, it is disappointing to note the low ranking that teachers attributed to University classes in stating their in-service preferences. The cost of such courses, and the fact that many teachers have access to them only during summer session, may have been a deterrent to a number of respondents.

In summary, the outstanding feature of teachers' in-service preferences is re-iterated—the availability of model units was for teachers at all stages of adoption the most frequently chosen means of becoming familiar with the new curriculum, while actual membership on unit planning committees was the least preferred of the nine proposed means of assistance. Teachers also expressed a desire to observe actual lessons in which the strategies of the new approach were incorporated and for participating in workshops operated by local personnel.

V. Summary of Chapter IV

This chapter was mainly concerned with the testing of the hypotheses and research questions that were formulated in Chapter II.

Analysis of variance and t test were the statistical procedures chosen to test the hypotheses, each of which was concerned with rate of adoption of the 1971 Alberta Social Studies Curriculum for Elementary Schools as the dependent variable. Testing of the research questions was done by analysis of variance and t test, stepwise regression analysis, and the compilation of frequency distributions.

Initially, to make subsequent analytical descriptions more easily comprehensible, information about the research population was presented and the nature of the various adopter categories into which respondents were grouped for purposes of statistical analysis was delineated. The applicability of the S-shaped adoption curve (Rogers and Shoemaker, 1971) to the present study was also discussed briefly.

Rogers and Shoemaker's theory that rate of adoption of an innovation is influenced by the perceived relative advantage, compatibility, trialability, observability, and complexity of the innovation was felt to be substantiated when Hypothesis 1 was tested. This result seemed to suggest that significant consideration should be accorded the opinions and perceptions of classroom teachers by those responsible for the development and diffusion of new curricula. From the testing of Hypothesis 2 and Hypothesis 3, it was concluded that rate of adoption was also influenced by teachers' perceptions of assistance and encouragement received from the principal (or vice-principal), supervisory

personnel (superintendent, supervisor, or curricular associate), other teachers, and in-service activities. Rate of adoption of the 1971 Alberta social studies curriculum was not found to differ according to years of teaching experience (Hypothesis 4), or years of professional training (Hypothesis 5).

Question 1 was asked in an attempt to ascertain the extent to which the new social studies curriculum had been adopted by elementary teachers at the time of the research. However, because of sampling limitations, generalizations as to extent of adoption throughout the entire province could not be made. But of the 317 teachers involved in the research project, a total of 54.3% claimed to be implementing the new curriculum to some extent, a further 22.4% claimed to be familiar with the new program but to be not implementing it, and the remaining 23.3% claimed to be not familiar with the new curriculum or the teachers' handbook, Experiences in Decision Making.

Teachers at different stages of adoption seemed to be in basic agreement with the value-oriented philosophy of the new Alberta social studies curriculum. Similarly, there seemed to be a general consensus among groups at different stages of adoption that the new curriculum is relatively advantageous to students, while being disadvantageous to teachers, particularly in terms of amount of time and work required in preparation, evaluating student progress, and obtaining suitable resources and materials for lessons and units. These features, supplemented by the overall perceived difficulty

of developing lessons and units around value issues and of putting the valuing techniques and strategies into actual classroom use, suggested that if the fuller adoption of the new curriculum is to be facilitated, modifications to its present format are needed so as to ease the burden that teachers apparently perceive to have been placed upon them. These conclusions were among those drawn from the testing of Question 2.

When Question 3 was tested it was found that classroom teachers' perceptions on each of the various attributes of the new curriculum were quite uniform throughout the elementary grades. The results of Question 4 indicated that rate of adoption of the innovation did not vary with grade level taught. Neither did rate of adoption appear to be influenced by whether or not teachers were social studies majors (Question 5). However, when Question 6 was tested, significant differences in rate of adoption were found to exist between teachers who did have/did not have University courses in the new social studies.

Question 7 was asked in an attempt to determine which of the characteristics of an innovation as perceived by classroom teachers best distinguished between the stages of the adoption process as defined by Rogers and Shoemaker (1971). The results of stepwise regression analysis performed with the characteristics as predictor variables, and stages of adoption as the criterion variable, suggested that relative advantage and complexity were most important in accounting for variance in rate of adoption. The two characteristics were

of particular importance at the latter stages of the adoption process. However Carlson's (1965b) observation that the perceived characteristics of an innovation only partially account for variance in rate of adoption was felt to be substantiated by the findings of this study.

When Question 8 was tested, it was found that the perceived influence of the principal (or vice-principal) was more important in distinguishing the stages of the adoption process than was the perceived influence of either supervisory personnel (superintendent, supervisor, or curricular associate) or other teachers. However, more advanced stages of the adoption process were also distinguished by the perceived influence of in-service activities, suggesting that in-service should be on-going and not merely a means of introducing innovations to classroom teachers. Finally, it was noted that the relatively small amount of total variance between stages of adoption accounted for by the perceived influence of change agent personnel seemed to substantiate Rogers' (1962) claim that there is an absence in the educational setting of effective change agents.

Teachers at all stages of adoption indicated a strong preference for in-service assistance in which model units dealing with the new social studies were made available to them (Question 9). By contrast, membership on active unit planning committees was the overall least preferred means of becoming familiar with the innovation. Teachers also expressed a strong desire for opportunities

to observe social studies lessons in which the techniques and strategies of the new approach were manifested, and a preference for workshops conducted by local rather than visiting personnel.

These findings appeared to substantiate earlier conclusions regarding the perceived difficulty of developing lessons and units according to the requirements of the new approach, of putting the valuing techniques and strategies into actual practice, and the relative disadvantage of the new program to teachers because of the large amounts of time and work required for preparation.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS OF THE STUDY

This final chapter of the report comprises a restatement of the dual problems that were investigated, a description of the research design and methodologies, and the results of the analysis of data. The major conclusions that were drawn from the findings of the study are also stated with attendant implications.

I. Summary of the Study

Two major problems pertaining to the implementation of the 1971 Alberta Social Studies Curriculum for Elementary Schools were perceived to exist. Accordingly, the present study was characterized by dual purposes. Firstly, because no comprehensive attempt to evaluate the nature of the reactions of Alberta's elementary teachers to the new social studies curriculum had previously been made, although evaluation at the instructional level is generally acknowledged to be an essential component of the developmental curriculum process, the present study sought to investigate the perceptions of classroom teachers concerning the feasibility, suitability, and effectiveness of the new curriculum.

Secondly, there continues to exist in education what Guba (1966) has referred to as a "rampant conceptual poverty about the change

process." (Gross, Giacquinta & Bernstein, 1971, p.8) That is, although a great number of researchers have propounded theories to explain the different rates of adoption of educational innovations, little consensus exists as to why some innovations are readily adopted while others fail to be incorporated into the social system of the school. Therefore, a second purpose of this research project was to investigate the extent to which the adoption of the new Alberta social studies curriculum was influenced by a number of variables, each pertaining to classroom teachers, who are felt to have been attributed inadequate consideration in past research into the adoption of educational innovations.

Five hypotheses and nine research questions were established in the light of a review of literature pertinent to the two problem areas. A recent conceptualization of the process of adoption of innovations as developed by Everett Rogers and F. Floyd Shoemaker (1971) was accorded special significance in the review, the formulation of hypotheses, and, subsequently, in the development of the research instrument. Of the five variables which are claimed by Rogers and Shoemaker to influence the adoption process, two were felt to be of particular significance in the case of the innovation in question. These were the perceived characteristics of the innovation (relative advantage, compatibility, complexity, trialability, and observability) and the extent of change agents' promotion efforts. (Rogers & Shoemaker, 1971, p.158)

For each hypothesis, the dependent variable was rate of adoption of the new curriculum by classroom teachers. Independent variables were the characteristics of the innovation as perceived by teachers, perceived assistance received from change agent personnel and from in-service, years of teaching experience, and years of teacher education. Several research questions also attended to the problem of lack of uniformity of rate of adoption of innovations. For these questions, the independent variables were teachers' social studies (or other) major background, university courses in the new social studies, and grade level taught. One question attended to the problem of ascertaining the extent to which the new curriculum had been adopted at the time of the research. Two others sought to gauge the reactions of teachers at different stages of adoption and at different grade levels to the important characteristics of the new curriculum. In addition, two questions were asked in an attempt to determine the relative importance of specific characteristics of an innovation and specific types of change agent and in-service influence in distinguishing the various stages of the adoption process. Finally, a question pertaining to the nature of teachers' in-service preferences was presented for investigation.

The Design and Methodology of the Research

The research sample comprised a total of 317 elementary social studies teachers from nine school jurisdictions in or near to the

city of Edmonton. While the decision to restrict the sample to one geographical region of the province was recognized as imposing a limitation on the generalizability of the research findings, it enabled personal contact to be established with each subject in the sample. This circumstance is felt to have been responsible for the eventual participation in the project of more than 90% of selected teachers.

An instrument designed to obtain information to test the hypotheses and research questions was devised in the form of an opinionnaire. Section A of the instrument, the Innovation Adoption Inventory, was designed to measure rate of adoption of the new curriculum by classroom teachers. It comprised ten items, responses to which enabled a mean score, or rate of adoption index, to be calculated for each adopter of the innovation. Subsequently, for purposes of statistical analyses, four groups of teachers were categorized:

1. Those who claimed to be not familiar with the new curriculum, or the contents of the teachers' handbook, Experiences in Decision Making.
2. Those who claimed to be familiar with the new curriculum, but to be not implementing it at the time of the research.
3. Those who had adopted the new curriculum but whose rate of adoption indices on the Innovation Adoption Scale were located below the fiftieth percentile for all adopters.
4. Those who had adopted the new curriculum, and whose rate

of adoption indices on the Innovation Adoption Scale were located at or above the fiftieth percentile for all adopters.

Sections B, C, D, and E of the research instrument attended to the problem of obtaining teachers' reactions to the new curriculum. Items in these sections were selected according to their appropriateness to the five characteristics of an innovation which are said to be most important in influencing rate of adoption. (Rogers & Shoemaker, 1971) That is, teachers' perceptions of the relative advantage, compatibility, complexity, trialability, and observability of the new social studies curriculum were ascertained. Also, about 30% of respondents supplemented their responses to Sections B, C, D, and E of the research instrument with written comments on the characteristics of the new curriculum.

Section F of the opinionnaire was designed to obtain information about the perceived amount of assistance that teachers had received to implement the new curriculum from various change agent personnel and from in-service, and to obtain a statement of the types of in-service activities that teachers felt would be of most use to them in their efforts to implement the new program. In the final section of the research instrument, information was solicited about a number of personal teacher variables.

The Innovation Adoption Inventory and those sections of the testing instrument dealing with the five attributes of an innovation were validated both empirically and by authoritative personnel. Particular emphasis was placed upon the concept of concurrent validity as it applied to the Innovation Adoption Inventory. That is, it was

felt necessary to establish the extent to which teachers' perceptions of rate of adoption concurred with actual rate of adoption. To this end, interviews were conducted with a number of teachers and students, and a rating on each selected teacher's adoption of the new curriculum was obtained from the principal of his school. It was subsequently concluded that the Innovation Adoption Inventory was a relatively accurate means of measuring rate of adoption but that certain individual differences among teachers, which it was not possible to control, were of sufficient magnitude as to suggest that a number of adopting teachers might rate themselves inaccurately to a maximum of one point on the 5-point Innovation Adoption Scale. Also, the Innovation Adoption Inventory and sections of the opinionnaire pertaining to the characteristics of the innovation were found to have fairly high test-retest reliability.

Finally, the two major limitations that were believed to characterize the study are restated as follows:

1. It is possible that the sample was not a true representation of all elementary social studies teachers of Alberta.
2. The Innovation Adoption Inventory is known to have been not completely accurate as a means of measuring rate of adoption of the new curriculum. Deficiencies were felt to be overcome to a certain extent by the statistical procedures that were chosen for the analysis of research data.

Results

The five hypotheses and several of the research questions were

tested by analysis of variance and t test. Stepwise regression analysis was employed to test two questions and frequency distributions were compiled in the investigation of two others.

Hypothesis 1, that teachers tend to adopt more quickly those innovations which they perceive to have a high relative advantage, compatibility, trialability, and observability, and a low complexity was accepted when mean scores on each characteristic for groups of teachers at preliminary and advanced stages of adoption were found to be significantly different in the direction hypothesised. Conclusions arrived at from the review of literature about the positive influence on rate of adoption of the principal (or vice-principal), supervisory personnel, colleagues, and in-service activities were concluded to be substantiated by the testing of Hypothesis 2 and Hypothesis 3.

Hypothesis 4, that rate of adoption does not vary for groups with differing years of teaching experience, was accepted. But Hypothesis 5, that teachers who have more years of professional training tend to adopt innovations more quickly, was not affirmed as it applied to the sample for this research project.

Question 1 which asked for extent of adoption of the new curriculum at the time of the research, produced the following results. A total of 74 elementary social studies teachers, or 23.3% of the research sample, claimed to be not familiar with the new curriculum at the time of the research. A further 71 teachers, or 22.4% of the research sample, indicated that they were familiar with the new curriculum but were not, at the time of the research, attempting to

implement it. A total of 54.3% of the population for the study claimed to be incorporating elements of the new curriculum into their teaching of social studies. Approximately half of this group were perceived as having adopted the new curriculum quite extensively.

Analysis of Question 2, which investigated teachers' perceptions of the characteristics of the new curriculum, indicated that the value-oriented philosophy of the innovation tended to be well accepted by teachers at all stages of the adoption process. Similarly, teachers at all stages of adoption perceived the new curriculum to be relatively easy to try out, at first, on a limited basis, but to be relatively difficult to discuss with others or to observe in its effects. Teachers at different stages of adoption also tended towards agreement that the new social studies in its present form was advantageous to students but disadvantageous to teachers. Chief sources of disadvantage to all adopter groups were the amount of time and effort required for preparation of lessons and units, evaluation of student progress, and the obtaining of suitable materials and resources. Finally, the curriculum was perceived as being more complex in nature than is usual with a new program. Chief sources of difficulty for teachers at all stages of adoption were two aspects of the curriculum pertaining to application—developing units and lessons around value issues and putting the suggested valuing strategies into practice in the classroom. A further significant source of difficulty concerned teachers' understanding of their role as teachers of the new curriculum. Teachers' written

comments of the characteristics of the new curriculum appeared to affirm the results of the statistical testing of the second question.

When Question 3 was tested, perceptions of the characteristics of relative advantage, compatibility, complexity, trialability and observability were not found to vary in accordance with elementary grade level taught. Neither was rate of adoption for adopters of the new curriculum found to vary for teachers at different grade levels (Question 4). However, it was found that a total of 73% of the Non-Familiar group were teachers at the lower elementary (grades 1, 2, and 3) levels.

When Question 5 was tested, rate of adoption of the new curriculum was not found to vary according to whether or not teachers had a social studies major background. However, those teachers who had undergone specialized training in the new social studies by taking appropriate university courses were found to have a significantly higher mean rate of adoption index than teachers who had not taken such courses when Question 6 was tested by t test.

At the advanced stages of adoption of the new curriculum, perceptions of the characteristics of the innovation were found to be of some importance in accounting for variance in rate of adoption. When Question 7 was tested by correlations and stepwise regression analysis, the characteristics of relative advantage and complexity were found to account for a total of 25% in the variance in adoption between teachers at the "persuasion" and "decision" stages of the adoption process, as those terms are defined by Rogers and Shoemaker

(1971). Correlations and the stepwise regression procedure were also used to test Question 8 which sought to identify the relative importance of perceived in-service and change agent influences in accounting for variance between the various adoption stages. Perceived amount of influence of the principal was concluded to be of most importance in distinguishing the stages of the adoption process, although at the more advanced stages perceived amount of in-service was also important.

The analysis of Question 9 in which teachers' in-service preferences were tabulated, produced results which appeared to complement earlier findings. Teachers at all stages of adoption expressed a strong preference for assistance in the form of availability of social studies units modelled on the new curriculum. The second most popular choice of all adopter groups was for opportunities to observe lessons in which the strategies of the new approach to the teaching of social studies are demonstrated. The least popular overall choice was for membership on a unit planning committee. The nature of these preferences concurred with teachers' perceptions of the large amounts of time and work that are necessary to prepare lessons and units appropriate to the new curriculum, and of the difficulty of putting the valuing strategies into actual practice in the classroom.

In summary, research results presented in this report are believed to represent evidence pertaining to the extent of adoption in May, 1972, of the 1971 Alberta social studies curriculum, the

reactions of elementary social studies teachers to the new social studies curriculum, and the influence on rate of adoption of innovations of a number of teacher variables.

II. Conclusions

The following conclusions were arrived at on the basis of research findings from the present study. These conclusions, however, must be treated with caution since the evidence on which they are based is subject to two major limitations. Firstly, the research sample was not necessarily representative of all elementary teachers of the province. Secondly, while considerable effort was expended in the development of a sound testing instrument and while the overall validity of the final form of the instrument was established, it is known that the Innovation Adoption Inventory, from which rate of adoption indices were calculated, was characterized by slight deficiencies that may have had some effect on the nature of statistical results.

The study was characterized by dual purposes and conclusions are stated in the context of their pertinence to each of the two major problems that were perceived at the outset to exist.

Reactions of Elementary Teachers to the New Alberta Social Studies Curriculum

At the point in time of the investigation, 54.3% of the teachers who comprised the sample for the study claimed to be attempting to

implement the new Alberta social studies curriculum. A total of 22.4% of sampled teachers claimed to be familiar with the nature of the new curriculum but to be not attempting to teach it. The remainder of the research sample (23.3%) claimed to be not familiar with the new curriculum or the elementary teachers' social studies handbook, Experiences in Decision Making.

It is concluded that the most unique attribute of the new curriculum, the value-orientation of its rationale, has been perceived favourably by classroom teachers at all stages of adoption and at all grade levels of the elementary school. Nevertheless, there was general indecision among teachers in the research sample as to whether the society in which we live is in agreement that children should learn at school how to choose for themselves the basic human values they will hold and as to whether children are, in reality, capable of "discovering" the basic human values through processes of inquiry without indoctrination, persuasion, or imitation. In spite of these doubts, teachers at all stages of adoption of the new curriculum were in agreement that schools have a responsibility in the values-education of children, and that, by examining value issues, students will be better prepared to use personal freedom in a responsible way.

There appeared to be a striking contrast in the attitudes of teachers at each stage of the adoption process as to the relative advantage of the new curriculum in its present form. That is, the new program was generally agreed to be advantageous to students but

was perceived as being disadvantageous to teachers, chiefly in terms of amount of time and work necessary to prepare lessons and units, of evaluating students, and of locating suitable materials and resources. Since the component of perceived relative advantage was found to best distinguish the stages of the adoption process, it is concluded that fuller adoption of the new curriculum would be facilitated if steps were taken to eliminate the hindrances which teachers at all stages of adoption currently perceive to exist. The component of complexity of the curriculum was found to be of second most importance in accounting for variance in rate of adoption. While no indication was obtained to substantiate recent allegations that the new curriculum is perceived as a "Mickey Mouse" course (Frankcombe, 1972) which asks teachers to become "propaganda agents" (Stolee, 1970), the data suggest that the role of the teacher of the new curriculum needs to be more clearly defined and that steps should be taken to assist teachers to obtain skills in unit development and to apply techniques and strategies appropriate to the new approach. To this end, teachers' own preferences might be utilized. That is, a variety of model units at each grade level might be developed, and arrangements made for teachers to observe demonstrations by qualified colleagues of lessons in which valuing strategies are manifested.

The above conclusions are felt to be of particular significance because of the finding that the characteristics of relative advantage and complexity were of most importance in accounting for variance in

adoption at the more advanced stages of the adoption process. That is, if it is assumed that greater numbers of teachers will begin to teach according to the requirements of the new approach in the future, it follows that the characteristics of relative advantage and complexity will become increasingly important as determinants of adoption.

In summary, teachers' perceptions of the 1971 Alberta social studies curriculum suggest that the rationale of the new curriculum has been well accepted by the elementary teachers of Alberta. But the reactions of teachers to the curriculum in its present form indicate that unless steps are taken to assist teachers in curriculum development and to enable teachers to acquire skills appropriate to the unique components of the new approach, much of the promise of the innovation may not be realized.

Factors Affecting the Rate of Adoption of Innovations

It is concluded that Rogers and Shoemaker's (1971) theory about the perceived characteristics of an innovation influencing rate of adoption is of considerable importance in its application to classroom teachers. Firstly, since rate of adoption of the new curriculum was found to differ significantly in the direction hypothesised according to teachers' perceptions of the characteristics of the innovation in question, it is concluded that the perceptions of classroom teachers are important elements for consideration by both those who develop new curricula and those

who are responsible for their diffusion. Rogers and Shoemaker (1971) alluded to the potential of this circumstance in asserting that, if sufficient can be learned about the ways in which perceived characteristics influence adoption, change agents might be enabled to use such knowledge to predict the reactions of their clients to an innovation and perhaps to modify certain of these reactions by the way they name and "package" the innovation. (Rogers & Shoemaker, 1971 , pp.135-136) One further conclusion is offered about Rogers' theory as it applies to education. The results of this research project suggest that the availability of appropriate materials and resources may be an important component in influencing rate of adoption. Miles (1964) and Johnson (1969) both claimed that availability of materials is an attribute of an educational innovation that influences the adoption process. It is suggested that the element of availability of materials should be considered for incorporation into the characteristic of relative advantage, as the characteristic is defined by Rogers and Shoemaker. (1971, p.22)

From the findings of the present study it is also concluded that teachers respond positively to whatever assistance from change-agent personnel and in-service activities can be made available to them in their efforts to implement educational change. In particular, the remarks and research findings of MacKay (1964 and 1966), Chesler, Schmuck and Lippitt (1963) and Parsons (1971) about the dominant position occupied by the principal are concluded to be

well-founded. The findings of this study also suggest that in-service activities should be an on-going part of planned educational change. Perceived amount of in-service accounted for most variance in adoption of the new Alberta social studies at advanced stages of the adoption process, suggesting that, in Alberta in the future, as adoption of the new curriculum becomes more widespread, in-service activities should be attributed even greater importance than they have been in the immediate past. The types of in-service activities which were perceived most favourably by classroom teachers have been referred to previously.

It is concluded that a "typical adopter" or "typical non-adopter" of the new social studies curriculum in terms of teaching experience, years of education, major background of study, or grade level taught cannot be identified. However, teachers with university courses in the new social studies were significantly more advanced in adoption of the innovation than were teachers without such courses. Therefore, it is concluded that efforts should be made to either broaden the availability of such courses or to draw the attention of classroom teachers to the benefits that the courses apparently offer. However, it is possible that many of the teachers who had undertaken University courses in the new social studies were social studies enthusiasts before they enrolled in the courses. Further research into this particular possibility would appear to be worthwhile.

In summary, a number of factors have been identified as

associated with significant differences in the rate of adoption of the 1971 Alberta social studies curriculum. It is concluded that consideration of these factors by those responsible for the more complete adoption of the new program should contribute to its fuller implementation in the schools of Alberta.

III. Implications

The present study was earlier perceived as deriving its significance from the need for an investigation of the reactions of teachers to the new Alberta social studies curriculum and from the need in educational research for greater understanding of factors which affect the rate of adoption of educational innovations. Accordingly, implications of the findings of the project are felt to apply chiefly to those concerned with fostering the adoption of the new Alberta curriculum, particularly the provincial Department of Education and educators acting in a supervisory capacity, and to researchers of the process of adoption of educational innovations.

The Department of Education

The Curriculum Branch of the Department of Education for the Province of Alberta is said to have been long recognized for its leadership in curriculum building. (Finn, 1967, p.24) Subsequent to the development of the 1971 Alberta Social Studies Curriculum for Elementary Schools the claim was made by a social studies authority that the Curriculum Branch of the Department of Education

in this province "will have a profound impact on social studies curriculum in the Seventies." (Gunn, 1971, p.665) However, as was remarked early in this report, such acclamation may be presumptuous. It is extremely difficult, if not impossible, to determine in advance of full implementation just what impact on instruction any major curriculum revision will have.

The findings of this study suggest that the Department of Education in Alberta has developed a social studies program which has the potential to win the support of the elementary teachers of the province in that the unique value-oriented philosophy of the new curriculum has been perceived by classroom teachers at all elementary grade levels as in keeping with the needs and interests of students living in contemporary society. But the new curriculum is also perceived by classroom teachers as making considerable demands upon their time, energy, and resources. Indeed, it would appear from an analysis of teachers' perceptions and descriptions that if the average classroom teacher is to fully incorporate the new curriculum into his teaching of the social studies, then his preparation for other subjects will suffer. If he is to devote no more than the usual amount of time and work to preparation of social studies units and lessons, then teachers' perceptions and opinions suggest doubt as to how effectively he can teach social studies according to the requirements of the new approach.

Thus while it is concluded that the Department of Education has established a basis for the advancement of a social studies curriculum which classroom teachers perceive to be both appropriate to and in the best interests of the students of the elementary schools of this province, a number of steps to refine the curriculum in its present form so as to better achieve its intended purpose are suggested.

1. A variety of units at each grade level might be developed and tested by knowledgeable personnel and distributed to teachers.

2. Clear descriptions of the usage of the valuing techniques and strategies might be made available to all teachers. Such descriptions would be most appreciated if accompanied by demonstrations.

3. Precise additional guidelines might be issued pertaining to appropriate methodologies for evaluation of students.

4. Either suitable resources and materials might be made available to classroom teachers or comprehensive suggestions offered to acquaint teachers with the means of procuring such resources for themselves.

Supervisory Personnel

As has been previously noted, it would appear that, with the implementation of the new social studies curriculum, in-service should be an on-going activity. In-service activities in this instance appear to be most worthwhile as teachers reach more advanced stages of the adoption process. In keeping with

the expressed preference of classroom teachers, it is recommended that local supervisory personnel assume responsibility for in-service activities, and that such activities incorporate intervisitations so that teachers can observe lessons, activities, and strategies appropriate to the new curriculum in action. The findings of this study suggest that workshops or seminars at which efforts are made to convince teachers of the need for a "values" curriculum are not required; what teachers appear to require is assistance which will enable them to resolve some of the problems of time and workload that appear to characterize attempts to teach according to the requirements of the new Alberta curriculum.

Educational Research

The findings of the present study indicate several areas of importance for future research. Firstly, there is to date no consensus as to the relative importance of the perceived characteristics of an innovation at the various stages of the adoption process. It is possible that, while a conceptual structure of characteristics of an innovation seems clearly to exist, differences between innovations are so great that the relative importance of perceptions of specific characteristics in influencing rate of adoption cannot be generalized. This is an important question that might only be resolved by consideration in a vast number of future research projects.

Secondly, different authorities and researchers have produced evidence suggesting that each of a number of change agent personnel

is of most importance in influencing the adoption process. The results of this study indicate the overall importance of the principal, but also that at different stages of the adoption process different forms of assistance to teachers may be of most importance. It is felt that further investigation of this possibility is needed.

Finally, evaluation of curriculum development and diffusion is of greatest advantage if it is a continuous activity. It is felt that the execution at a future date of a project similar to the present study would have considerable value. Firstly, the findings of this study would be strengthened by substantiation in another research project. Secondly, a truer indication of the likely fate of the 1971 Alberta social studies curriculum would be obtained if, at some future point in time, this project were replicated and changes in attitudes of teachers towards the innovation subsequently measured.

IV. Concluding Statement

It is trite to say that the world is changing rapidly, and that schools, as social institutions, must change too if they are to serve society to the greatest possible extent. But much remains unknown about the process of planned change, especially in education. Studies of educational change are therefore important for two reasons. Firstly, specific instances of planned change should be subject to frequent, if not continuous, investigation so that those involved

in implementing the change can appraise the effects of their efforts and obtain a basis for initiating further change strategies.

Secondly, if planned change in education is to realize its full potential, studies of a number of aspects of the change process are in need of research. One important need involves the identification of factors which influence rate of adoption of innovations.

The present study sought to contribute to the betterment of the teaching of the social studies in Alberta and to the advancement of educational research by investigating aspects of each of these two problem areas. It is hoped that, in spite of the tentativeness of the research findings and the fact that much further investigation is required in both instances, the present study has contributed in some way towards the easier attainment of educational goals.

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APPENDIX A

SAMPLE LETTER TO SUPERINTENDENTS OF SCHOOLS

Dept. Elementary Education,
University of Alberta,
Edmonton,
Alberta.

April 15, 1972.

Mr.,
Superintendent of Schools,
.....
.....
Alberta.

Dear,

I am currently engaged in a research project which attempts to ascertain the reactions of the elementary teachers of Alberta to the "new" (1971) Alberta social studies curriculum.

Hopefully, a total of 370 teachers from nine school jurisdictions will comprise the sample for this study. I am soliciting your approval of my engaging in part of my research in your school jurisdiction, to the extent of about teachers selected randomly from schools.

The basis of the study is an opinionnaire (enclosed) developed according to Everett Rogers' definitions of the characteristics of an innovation and validated both empirically and by authoritative personnel. The Curriculum Branch of the Department of Education has endorsed this study and has lent a degree of financial support to its execution.

Subject to your approval, following is what I would like to do:

1. Obtain from you a list of elementary schools in your jurisdiction and the number of teachers at each school.
2. Contact the principals of selected elementary schools in your school district for permission to involve their teachers in the research project.
3. Call at schools in your jurisdiction on and so as to distribute and collect research opinionnaires.

It is expected that the findings of this research project will be of some significance to those involved in or interested in the implementation of the 1971 Alberta Social Studies Curriculum for Elementary Schools. Accordingly, a statement of the research findings will be forwarded to all schools that participate in the study. Should you so desire, a statement can also be forwarded to you as soon as the research project is completed.

I shall phone your office on in the hope of obtaining your verbal response to my request and to answer any queries that you might have.

Thank you in anticipation of your support.

Yours sincerely,

F. A. Crowther.

APPENDIX B

SAMPLE LETTER TO SCHOOL PRINCIPALS

Dept. Elementary Education,
University of Alberta,
Edmonton,
Alberta.

April , 1972.

.....
Principal,
..... Elementary School,
.....
Alberta.

Dear,

I am writing to solicit your assistance in a research project in which I am currently engaged as a graduate student in the Department of Elementary Education at the University of Alberta. The project involves a study of the reactions of the elementary teachers of Alberta to the 1971 Alberta social studies curriculum.

It is hoped that the total sample for this research will be comprised of 370 teachers from about 40 schools in nine school jurisdictions of the province. The curriculum branch of the Department of Education has endorsed this study and has lent a degree of financial support to its execution. Your superintendent has been approached and has given his permission for me to solicit your support for this project. Following is what I would like you to do:

1. Distribute letters of introduction (copy enclosed) to your teachers on
2. Permit me to call at your school on to leave copies of the research testing instrument (copy enclosed) with each teacher selected for participation in the study.
3. Permit me to call back at your school on to collect completed questionnaires.

I should very much like to distribute testing instruments after having established personal contact with each of your teachers. In this way I feel that high participation in the project will be encouraged.

I shall contact you by telephone on in the hope of obtaining a response to my request and to answer any queries that you might have.

Thank you in anticipation of your consideration and support.

Yours sincerely,

F. A. CROWTHER.

APPENDIX C

SAMPLE LETTER TO TEACHERS

Dept. Elementary Education,
University of Alberta,
Edmonton,
Alberta.

May, 1972.

Dear Colleague,

Re: Social Studies Research Project

My name is Frank Crowther and I am a graduate student in the Department of Elementary Education at the University of Alberta. At the moment I am doing research which involves an investigation of the attitudes of the elementary teachers of Alberta to certain aspects of the social studies in the province. As you are probably very much aware, there is at present a good deal of concern among elementary teachers in Alberta about the teaching of the social studies. The principal objective of this research is to find out what elementary teachers think of recent trends in the social studies, especially the emphasis on "values."

Three hundred seventy elementary teachers from about forty randomly selected schools in nine school districts are being asked to assist in the research. The Curriculum Branch of the Department of Education had endorsed this study, and your superintendent and principal have kindly allowed me to seek your support.

Participants in the study are requested to complete an opinionnaire, which takes from a minimum of five minutes to a maximum of twenty minutes to answer in full. It is in no way a test of knowledge or teaching skill. Rather, it asks for professional opinions about aspects of the teaching of the social studies.

I shall be calling at your school on to distribute the opinionnaire and shall call back to collect them. I hope to be able to meet briefly with you on the occasion of my first visit, to answer any queries you might have. Please bear in mind that this research represents a genuine attempt to ascertain teacher opinions about social studies in the elementary schools of Alberta. It is hoped that your co-operation in this research will enable suggestions to be made that will promote the needs and interests of all our social studies teachers.

Thank you for your anticipated assistance.

Sincerely,

F. A. CROWTHER.

APPENDIX D

COPY OF THE TESTING INSTRUMENT

SOCIAL STUDIES OPINIONNAIRE FOR ELEMENTARY SCHOOL TEACHERS

INTRODUCTION

The research in which you have been asked to participate is intended to find out what elementary teachers think of Alberta's "new" social studies curriculum, and what some of the more urgent needs of elementary social studies teachers appear to be. Your professional opinions should enable such questions as the following to be answered:

What aspects of the "new" social studies do classroom teachers perceive to be desirable/undesirable?

Is the "values approach" more satisfactory at some grade levels than at others?

In preparing for a new curriculum, what types of in-service do teachers prefer?

It usually takes about 20 minutes to answer all five sections of the opinionnaire. You are not asked to identify yourself, and no information will be associated with any particular school or district. Please feel free to indicate your real feelings wherever possible.

NOTE: In this questionnaire the "new" social studies means specifically the 1971 Alberta Social Studies Curriculum as outlined in the Department of Education Handbook, Experiences in Decision Making.

INSTRUCTIONS FOR PARTICIPATING IN THE RESEARCH

Please read the following very carefully:

1. If you are NOT FAMILIAR with the 1971 social studies curriculum or the contents of the Department of Education Handbook, Experiences in Decision Making, answer only Section D and Section F of the opinionnaire.

2. If you ARE FAMILIAR with the 1971 social studies curriculum, and the contents of the handbook, Experiences in Decision Making, please circle the one response below that is most appropriate:

- (a) I am attempting to teach the "new" social studies.
- (b) I have tried out the "new" social studies and have discontinued my efforts to teach it.
- (c) I hope to begin teaching the "new" social studies in September, 1972.
- (d) I have not decided when to begin teaching the "new" social studies.
- (e) I do not intend to teach the "new" social studies.

IF YOUR ANSWER IS (a) please respond to all sections of the questionnaire.

IF YOUR ANSWER IS (b), (c), (d), or (e), answer all sections except Section A. (If you have had no actual experience with the new curriculum, you will have to base some responses on what you have heard, seen, or read of it.)

SECTION A

KEY TO RESPONSES:

1. = I place no emphasis upon ...
2. = I place slight emphasis upon ...
3. = I place some emphasis upon ...
4. = I place considerable emphasis upon ...
5. = I place very great emphasis upon ...

This is the most difficult section of the opinionnaire to complete in an unbiased and objective way. Please indicate the degree to which you emphasize each of the following procedures in your teaching of social studies by circling the most appropriate response to begin each statement.

For example, in the first item, if you don't organize your lessons around "value issues", circle the "1" to the right.

- | | no
emphasis | slight
emphasis | some
emphasis | considerable
emphasis | very
great
emphasis |
|---|----------------|--------------------|------------------|--------------------------|---------------------------|
| 1. ...organizing social studies lessons around clearly stated "value issues" which require students to make value judgments. | 1 | 2 | 3 | 4 | 5 |
| 2. ...using units developed in accordance with the course outline, (or using the sample units) in <u>Experiences in Decision Making</u> . | 1 | 2 | 3 | 4 | 5 |
| 3. ...encouraging children to "process values" according to the valuing process (of choosing from among alternatives, prizing the choice, and acting upon the choice.) | 1 | 2 | 3 | 4 | 5 |
| 4. ...giving students practice in making decisions by having them confront real life problems. | 1 | 2 | 3 | 4 | 5 |
| 5. ...planning the use of the "one-third time" jointly with students. | 1 | 2 | 3 | 4 | 5 |
| 6. ...planning for children to work alone and in small groups if they wish. | 1 | 2 | 3 | 4 | 5 |
| 7. ...using particular techniques (e.g. role-playing, contrived incidents, value sheets, etc., described in Chapter IV of the handbook) to have students examine their own values for clarity, consistency and defensibility. | 1 | 2 | 3 | 4 | 5 |
| 8. ...encouraging students to examine contemporary problems and controversial issues. | 1 | 2 | 3 | 4 | 5 |
| 9. ...planning social studies lessons so as to use the problem solving and inquiry techniques suggested in the curriculum guide. | 1 | 2 | 3 | 4 | 5 |

10. ...writing specific behavioral (value) objectives for social studies lessons and units. 1 2 3 4 5
11. ...using specific questioning strategies (for example, the "clarifying response") to encourage children to examine their own attitudes, beliefs, and values. 1 2 3 4 5
12. On the basis of the preceding responses, I would say that I am implementing the "new" social studies
- not at all i.e. making no attempt at implementation.
 - slightly i.e. trying out one or two of the new ideas to a limited extent
 - some i.e. trying out several new ideas fairly extensively
 - quite fully i.e. the new approach is my major, but not complete, focus of attention
 - completely i.e. the philosophy and strategies of the new curriculum are the complete focus of attention in my teaching of social studies.

SECTION B - DIFFICULTY

KEY TO RESPONSES:

- = extremely easy
- = relatively easy
- = average difficulty
- = relatively difficult
- = extremely difficult

Some new programs are easy to understand and put into practice, while others are quite difficult. Compared to other curricula you have had to become familiar with, how difficult is the "new" social studies? Respond to the following statements as each applies to your grade level(s).

1. understanding the objectives of the "new" social studies is ... 1 2 3 4 5
2. understanding what is expected of you as a teacher of the "new" social studies is ... 1 2 3 4 5
3. developing units and lessons around value issues is.. 1 2 3 4 5
4. understanding the contents of the new curriculum guide is ... 1 2 3 4 5
5. making use of the sample units in Experiences in Decision Making is ... 1 2 3 4 5
6. understanding the reasons for the value-orientation of the new curriculum is ... 1 2 3 4 5

extremely difficult
relatively difficult
average difficulty
relatively easy
extremely easy

7. putting the valuing strategies and techniques into actual practice in the classroom is...

1 2 3 4 5

Please write any additional comments on the relative difficulty of the "new" social studies on the blank page facing this one.

SECTION C - RELATIVE ADVANTAGE

KEY TO RESPONSES:

- 1 = decidedly more advantageous
 2 = more advantageous
 3 = no difference in advantage
 4 = less advantageous
 5 = decidedly less advantageous

The items below are intended to determine whether you think there are advantages in using the "new" social studies compared with its predecessor, at your grade level(s). What is your perception of the "new" curriculum, in terms of each of the following aspects:

- | | | | | | |
|---|---|---|---|---|---|
| 1. interest of subject matter to students. | 1 | 2 | 3 | 4 | 5 |
| 2. increasing children's knowledge of social science concepts. | 1 | 2 | 3 | 4 | 5 |
| 3. developing social studies skills (e.g. research, mapping, classifying, and analysing, etc.) in children. | 1 | 2 | 3 | 4 | 5 |
| 4. developing clear, consistent attitudes and values in children. | 1 | 2 | 3 | 4 | 5 |
| 5. promoting powers of responsible decision-making in students. | 1 | 2 | 3 | 4 | 5 |
| 6. teacher time and work to prepare lessons and units | 1 | 2 | 3 | 4 | 5 |
| 7. evaluating student progress in social studies. | 1 | 2 | 3 | 4 | 5 |
| 8. getting enjoyment and personal satisfaction from teaching social studies. | 1 | 2 | 3 | 4 | 5 |

Please make any additional comments on the relative advantage of the new social studies on the blank page facing this one.

SECTION D - VALUES IN EDUCATION AND SOCIAL STUDIES

KEY TO RESPONSES:

- 1 = strongly agree
 2 = agree
 3 = undecided
 4 = disagree
 5 = strongly disagree

In this section, the emphasis is on your opinions about the treatment of values in schools. It is very important that you respond to each statement as it applies to the grade level(s) you teach.

Indicate the extent to which you agree with each statement by circling the appropriate response to the right.

- | | strongly agree | agree | undecided | disagree | strongly disagree |
|---|----------------|-------|-----------|----------|-------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 1. Schools have a responsibility to assist the home, church, etc. in the values-education of children. | 1 | 2 | 3 | 4 | 5 |
| 2. Value teaching should be done on a deliberate, planned basis (rather than incidentally or as the occasion arises.) | 1 | 2 | 3 | 4 | 5 |
| 3. By examining value issues, children will be better equipped to use personal freedom in a responsible way. | 1 | 2 | 3 | 4 | 5 |
| 4. In "values education", students should learn how to choose for themselves the values they will hold (rather than have basic values transmitted to them) | 1 | 2 | 3 | 4 | 5 |
| 5. Children are capable of "discovering" the basic human values (e.g. love of freedom, equality, etc.) through processes of inquiry, without indoctrination, persuasion or imitation. | 1 | 2 | 3 | 4 | 5 |
| 6. In social studies, knowledge and skills objectives should always be means to specific value objectives, and not ends in themselves. | 1 | 2 | 3 | 4 | 5 |
| 7. Our society of today wants schools to take some responsibility for the values-education of children. | 1 | 2 | 3 | 4 | 5 |
| 8. Our society believes that children should learn how to choose for themselves the basic human values they will hold. | 1 | 2 | 3 | 4 | 5 |
| 9. The society in which we live approves of children (in social studies) inquiring into current controversial issues, deciding how these issues might be resolved, and where possible acting accordingly. | 1 | 2 | 3 | 4 | 5 |

10. Today, it is accepted by the general public that students in social studies should examine value issues pertaining to family matters, work, religion, politics, etc. 1 2 3 4 5

Please write any additional comments on the treatment of values in schools on the blank page facing this one.

SECTION E

11. The value-oriented philosophy of the new curriculum can be applied to the subject matter of the old. 1 2 3 4 5
12. The new curriculum can be implemented a little at a time; it is not a matter of "all or nothing". 1 2 3 4 5
13. It is easy to describe to others the effects of the new curriculum on students' attitudes and achievement. 1 2 3 4 5
14. The philosophy and strategies of the new curriculum are easy to discuss with colleagues. 1 2 3 4 5

SECTION F

Indicate the amount of assistance and/or encouragement given by each of the following in enabling you to implement the "new" social studies by circling the most appropriate "x" on each continuum:

	<u>Amount of Assistance</u>				
	<u>None</u>	<u>Little</u>	<u>Some</u>	<u>Considerable</u>	<u>Great</u>
(a) principal (or vice-principal) of your school	-x-	x-	x-	x-	x-
(b) supervisory staff (e.g. superintendent, supervisor, or curricular associate)	-x-	x-	x-	x-	x-
(c) other teachers in your school	-x-	x-	x-	x-	x-
(d) amount of in-service made available to you	-x-	x-	x-	x-	x-

Following is a list of nine attractive means of becoming familiar with a curriculum. Place check marks (✓) against the four (4) which you feel would best assist teachers to implement the "new" social studies if they were available:

-(a) membership on an active unit planning committee
-(b) workshops and seminars operated by visiting personnel (e.g. University or Department of Education.)
-(c) workshops and seminars operated by local personnel (local supervisor, associates, or colleagues)
-(d) conferences on the "new" social studies with expert speakers etc. (e.g. Banff Social Studies Conference).
-(e) university courses in the "new" social studies.
-(f) availability of current books and journals on the "new" social studies at your school.
-(g) observation of lessons demonstrating the strategies of the "new" curriculum.
-(h) release time for individual study of the "new" curriculum.
-(i) availability of model units prepared specifically for the new approach at your grade level.

PERSONAL DATA

Grade level(s) you teach (for social studies).....Years of teacher training..... Years teaching experience..... Are you a social studies major?..... Do you have University courses in the "new" social studies?.....

Please check to make sure you have completed the correct sections and leave your completed opinionnaire with Any extra comments you wish to add to any section will be welcomed.

MY SINCERE THANKS!

F. A. Crowther, Department of Elementary Education, University of
Alberta.

APPENDIX E

INTERVIEW SCHEDULE FOR TEACHERS RE SECTION A OF QUESTIONNAIRE

ITEM 1:

1. What are the social studies topics you have recently treated?
2. In what ways were students required to make value judgments?
3. What values were you attempting to emphasize?
4. Additional.

Rating: (amount of emphasis) none slight some considerable
great

ITEM 2:

1. How do units reflect (a) inquiry process?
(b) emphasis on student decision-making?
(c) priority of value objectives?
(d) aspects of sample units?
2. What do you perceive your units to reflect (from the curriculum)?
3. Additional.

Rating: none slight some considerable great

ITEM 3:

1. Examples from social studies to show how you encourage children to "process values."
2. How often?
3. What do you think of the practicibility of Rath's model?
4. Additional

Rating: none slight some considerable great

ITEM 4:

1. What real life problems? Examples.
2. How are children allowed to decide? Examples.
3. If you emphasized confrontation of real life problems to what extent is this unique to the "new" social studies?
4. Additional.

Rating: none slight some considerable great

ITEM 5:

1. How is student involvement attained?
2. How are student wishes considered?
3. Additional.

Rating: none slight some considerable great

ITEM 6:

1. To what extent?
2. For what purpose?
3. Is this characteristic only of your teaching of the "new" social studies? If not, what other subjects and to what extent?
4. Additional.

Rating: none slight some considerable great

ITEM 7:

1. What techniques have you used?
2. How often?
3. For what purpose?
4. Any observable changes in behavior of students?
5. Additional.

Rating: none slight some considerable great

ITEM 8:

1. What contemporary problems?
2. What controversial issues?
3. Is this unique to the "new" social studies?
4. What are your purposes?
5. Additional.

Rating: none slight some considerable great

ITEM 9:

1. What problem-solving and inquiry techniques?
2. How have you used them?
3. How did they enter into your planning of lessons?
4. Additional.

Rating: none slight some considerable great

ITEM 10:

1. Examples
2. How were they considered in working through a unit?
3. Additional.

Rating: none slight some considerable great

ITEM 11:

1. What strategies? Describe.
2. Definition of "clarifying response."
3. How did you use these techniques?
4. Any observable effects on students' behavior?
5. Additional.

Rating: none slight some considerable great

ITEM 12:

1. Does this appraisal fit with what you have previously thought?
2. Which items best differentiate your degree of implementation?
3. Additional items?
4. Additional.

Rating: none slight some considerable great

APPENDIX F
STUDENT INTERVIEW SCHEDULE

ITEM 1

1. What examples of recent topics and activities in social studies?
2. What **did** you learn from them?
3. What important decisions did you make?
4. Additional.

Rating: none slight some considerable great

ITEM 3

1. What experiences in choosing among alternatives in social studies lessons?
2. What emphasis on being proud of choice?
3. What emphasis on acting on choice?
4. Additional.

Rating: none slight some considerable great

ITEM 4

1. What real life problems?
2. What practice in making decisions?
3. Additional.

Rating: none slight some considerable great

ITEM 5

1. Extent of involvement in planning of "one-third" time?
2. Activities in "one-third" time?
3. Additional.

Rating: none slight some considerable great

ITEM 6

1. How much individual and small group activities?
2. Examples?
3. Additional.

Rating: none slight some considerable great

ITEM 7

1. What activities to examine own feelings, ideas, etc.?
2. Examples.
3. Additional.

Rating: none slight some considerable great

ITEM 9

1. Methodology used to treat social studies topics?
2. Examples?
3. Additional.

Rating: none slight some considerable great

ITEM 11

1. Types of questions teacher asks?
2. Examples?
3. Purpose of questions?
4. Additional.

Rating: none slight some considerable great

APPENDIX G

PRINCIPALS' FORMS RE VALIDATION OF RESEARCH INSTRUMENT

CONFIDENTIAL

PRINCIPAL'S PERCEPTIONS OF THE EXTENT OF IMPLEMENTATION
OF THE "NEW" SOCIAL STUDIES BY SELECTED TEACHERS

You are asked to consider very carefully the ways in which each of certain members of your staff teaches social studies. Please consider each staff member in terms of the following criteria, and any other aspects of the "new" social studies that might characterize his/her teaching. After considering each teacher's social studies units and lessons in terms of the following criteria, please evaluate him/her according to the extent to which he/she is implementing the new curriculum.

Suggested Criteria for Evaluation

A. Familiarity of the teacher with the 1971 Alberta social studies curriculum, and the Department of Education Handbook, Experiences in Decision Making.

B. The extent to which the teacher organizes his/her social studies lessons and units around clearly stated value issues which require students to make value judgments. (As suggested in Experiences in Decision Making.)

C. The extent to which the teacher emphasizes value objectives as the objectives of the social studies.

D. The emphasis that the teacher places upon the process of inquiry to encourage responsible decision-making.

E. The emphasis that the teacher places upon questioning strategies and other techniques designed to have children examine the values of themselves and others. (Many such techniques are described in Chapter IV of the Handbook e.g. role-playing, contrived incidents, value sheets, etc.)

Teacher	Extent to which "new" social studies is being implemented					
	Not at all	Slightly	Some	Quite fully	Fully	
	Not at all	Slightly	Some	Quite fully	Fully	
	Not at all	Slightly	Some	Quite fully	Fully	
	Not at all	Slightly	Some	Quite fully	Fully	
	Not at all	Slightly	Some	Quite fully	Fully	

KEY:	<u>Not at all:</u>	Making no attempt to implement the "new" social studies.
	<u>Slightly:</u>	Trying out one or two of the new ideas to a limited extent.
	<u>Some:</u>	Trying out several new ideas fairly extensively.
	<u>Quite Fully:</u>	The new approach is the major, but not complete, focus of attention.
	<u>Fully:</u>	The philosophy and strategies of the new curriculum are the complete focus of attention in teaching social studies.

APPENDIX H
LETTER TO PRINCIPALS RE TEST-RETEST RELIABILITY

Dept. Elementary Education,
University of Alberta,
Edmonton,
Alberta.

May ..., 1972.

Dear,

Firstly, thank you for the assistance you have rendered by co-operating in the social studies research project in which I am currently engaged. The data that has so far been analysed has provided some informative results. A synopsis of the final analysis will be forwarded to you in September or October as a token of my gratitude for your co-operation in this research.

I am presently attempting to establish the reliability of the opinionnaire which was the basis of the study. I require thirty of the people who participated in the study to complete the testing instrument again so that some indication of the reliability of the instrument can be gauged. I am asking if you can assist me in two ways:

1. Could you arrange for any three members of your staff who completed the original questionnaire to complete one of the enclosed duplicate copies? Once again, no names need be supplied. Matching up of questionnaires will be done on the basis of personal data (page 5 of the questionnaire).

2. Could you collect the completed questionnaires and mail them to me in the enclosed envelope?

Rest assured that this will be the last time that I shall solicit your help regarding this project. I look forward, however, to meeting you again in the not too distant future.

Yours sincerely,

F. A. CROWTHER.

APPENDIX I

LETTER FROM DIRECTOR OF CURRICULUM, DEPARTMENT OF EDUCATION



Executive Building, 10105 - 109 Street, Edmonton, Alberta

T 5 J 2 V 2

Telephone:

AC403, TELEX: ALTAEDCOMM, TWX: ED ADMIN EDM

May 29, 1972

To Whom It May Concern:

Re: Social Studies Investigation by Frank Crowther

We have received from school systems, formally and informally, many reactions regarding the introduction of the new program in Social Studies. A very significant person in this introduction is the teacher. Mr. Crowther's investigation is directed specifically at the teacher.

As a consequence, the Curriculum Branch has a strong interest in the findings of this study. Mr. Crowther has consulted with us in preparing his instruments and will provide us with a statement of his results. As it is the intention of the Curriculum Branch to direct some of its resources to the diffusion and adoption of new programs, we are of the opinion that investigations such as Mr. Crowther's will be valuable in structuring the use of those resources.

Therefore we would appreciate any assistance you may offer Mr. Crowther in his study. We make this expression of our interest fully recognizing and accepting that local autonomy must determine whether or not your system will participate. Thank you for any attention you may give this matter.

B30026